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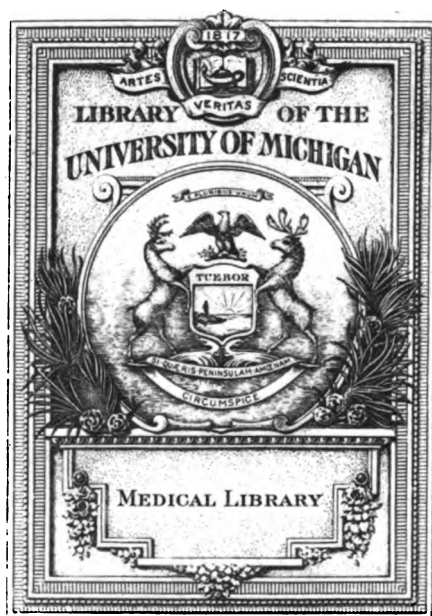
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Original Communications.

Report of Interesting Cases of Appendicitis, Etc.

By HENRY F. LONG, M. D., Statesville, N. C.

[Written for the North Carolina Medical Journal.]

BELIEVING that it may be of some interest to your readers, I take the liberty of sending you the following report of a few cases which have occurred in my practice recently.

Case No. I. Mr. E. A. W., visiting in country five miles from town, was first seen about 12 o'clock at night. I found the patient in great agony, screaming and writhing with pain, the muscles almost rigid from spasm, especially in the abdomen region. He begged for relief from his intolerable pain. Sulphate Morphia, grs. $\frac{1}{4}$ was at once administered and twice repeated at half hour intervals until grs. $\frac{3}{4}$ had been injected. Then the patient was sufficiently relieved to give a history of his case, and the muscles were sufficiently relaxed to admit of an examination. The history, briefly given, was as follows :

Age, 53 years ; twenty years ago, while working as a locomotive engineer, began to have colic once a month, each attack being more severe than the last. Decided to quit the road and move to the mountains. Located in Mitchell County. After removal had no further attacks of colic until about a week previous to present attack, when patient helped a neighbor to thresh wheat and thought attack was caused by over eating. Laudanum, in 40 drop doses, had controlled the pain and he had been easy until this night, when he awoke suffering from pain in abdomen, which had increased in severity until it was almost intolerable.

Examination disclosed a small tumor on right side, the whole abdominal region being very tender; temperature was $101\frac{1}{2}$ F; pulse 140. Advised immediate operation, telling patient I would return to town, get the necessary instruments, etc., and return as soon as possible. Patient objected to operation, owing to the fact that he was feeling easier and thought that, with proper care, an operation might be avoided, especially as every attack had been brought on by imprudent eating. I left him and returned to my office in town.

About 12 o'clock, noon, a runner came after me, saying the patient had another attack, more severe than the one during the night. Calling in Dr. T. E. Anderson and Dr. J. F. Long, I went to the patient prepared to operate. He died as I entered the room. That his suffering was intense can readily be believed when I report that he expired leaning with his abdomen across the back of a chair.

A post-mortem was made. When the abdomen was opened there was a gush of water, inflammatory exudate resulting from peritonitis. When this was cleared away, I sought for the appendix. I found it about twice the usual length and its extremity firmly adhered to the pelvic wall, fastened by old, well organized and dense adhesions. About half way of its length it had perforated and after removing it I found on the inside three grape seed.

This case is, to me, peculiar and of interest from the fact that it was a recurring appendicitis, a period of twenty years intervening between the first and second attacks, and simply shows that an appendix, having once become inflamed can not be trusted so long as it remains in situ, and is subject to a recurrence of inflammation upon the slightest irritation.

Case No. II. This case was one of consultation, the sufferer being a patient of Dr. M. R. Adams, a safe and conservative physician. Patient was taken with colic on Tuesday, was seen by Dr. A. Saturday, who diagnosed appendicitis and advised operation. Consent was withheld until Sunday. Preparations being completed I went with Dr. A. to patient's residence, but as patient was in the throes of death when we reached the house, of course no operation was attempted. After death, and while preparing for a post mortem, Dr. Campbell, while exposing the abdomen, made slight pressure on lower part of this region. The structures gave way suddenly and with a gush there came rushing from the rectum a great quan-

tity of pus, estimated to be between three and four pints. This stopped the post-mortem, as death had stopped the operation. This patient had been in good health, being a stout, well built negro, up to a short time previous to the fatal attack. He had suffered from several attacks of colic, after over eating, but salts and laudanum had always relieved him. He had tried this plan when the fatal attack began but as he was not relieved had at last called in Dr. A. From all the facts that could be learned as regards his symptoms, this was an example of the fulminating form of appendicitis, involving and finally perforating the intestine, the abscess evidently being very large, judging from the enormous amount of pus which was poured out into the bed. The character of the discharge and the odor precluded the idea that this was only an ordinary discharge from the lower bowel.

Case No. III. Lee L., male, age 25 years. This patient was first seen during the summer of 1897, when he suffered from a slight attack of appendicular colic. The case was not at all severe, was readily amenable to medicinal treatment, and, as it was not a severe attack and responded so quickly to the measures taken, the patient would not listen to argument as to the advisability of having an operation performed either during the attack or after. There was no return of the colic for perhaps fifteen months, and the patient was seemingly in the enjoyment of his full health. On the night of the 7th of September last his rest was broken by a second attack of appendicular colic. He was away from home at the time and did not reach home until the night of the 8th of September, when I first saw him. He was then suffering intensely; facies anxious; right leg drawn up; excessive tenderness over McBurney's point; abdomen tender and muscles tense; no tumor could be found. The temperature showed 102 degrees F; pulse 100. Patient had been given several hyphypodermatic injections of morphia before I saw him, with but little effect. I ordered saline purge, dose every hour until free evacuation occurred and placed an ice bag over the abdomen. During the following day, the 9th there was little change in the condition. There had been free evacuation of the bowels and the pain was not so intense, but the temperature had risen to 103 degrees F. and the pulse to 115. An operation was asked for and advised, but a consultation decided to wait another 24 hours. Owing to my absence from town it was in the afternoon of the 10th before I saw him again. Then it was plain to all that his life was

in jeopardy, if indeed it was not already lost. Temperature when placed on the operating table was 105 degrees, pulse 130.

The field of operation had been prepared beforehand and after a thorough scrubbing with green soap, washed off with a bichloride solution and this followed with an alcohol bath, the incision was made. The abdominal wound was made midway between the median line and the anterior superior spine of the ilium, was about three inches long and equally distant from the line of the umbilicus and the symphysis pubis. The appendix was not readily found, owing to the fact that it was firmly adhered to the colon on one side and to a fold of small intestine on the other. These adhesions were old, well organized and so dense it was found necessary to tie off and cut them before the appendix could be released. The appendix was about five inches long, one half of it about the size of a goose quill, the other part being about one inch thick, the thick part being next to the colon. There seemed to be a stricture about the centre, which may have been the cause of the rather curious condition. The swollen, turgid and partly gangrenous end of the appendix contained about an ounce of pus and ruptured while being taken out, but as it was well packed around with gauze the intestines and cavity were not contaminated. The stump, about one half of an inch long, was stripped of peritoneum, cauterized with pure carbolic acid, invaginated into the colon, the ridge stitched and the peritoneum closed over it. The abdominal cavity was flushed out with normal salt solution, the wound closed with through and through silk worm gut sutures, sterilized gauze and adhesive strips applied. No drainage was used, not fearing either infection or hemorrhage.

There was a good reaction from operation and anaesthetic and the case rapidly progressed to recovery. Nausea was present for the first 48 hours but subsided after that and there was no other complication to deal with. The patient is now fully recovered and in perfect health and has resumed his usual avocation, that of a carpenter.

Case No. IV. Is that of Silas S., act. 65 years. This patient was first seen about June 20th, '98. He was an inmate of the detention camp at the small-pox hospital. He applied to Dr. R. A. Campbell, who was in charge, for a dose of turpentine, to act on the kidneys. He gave the following history: Fifteen years ago, after exposure in very inclement weather, he suffered from retention of urine; the running range came on him after straining at a log roll-

ing. Catheterization was practiced for some time, the usual soft catheter being used by a physician. Patient after a time began to catheterize himself with wheat straws and tender weeds. Ten years ago he had two large sized "bealings" about the scrotum, which were opened by a physician, and in next two years two others appeared and ruptured spontaneously. Urination was difficult and frequent, followed by intense pain, particularly in glans penis; there was a sensation as if the empty bladder had closed down on something about the size of a walnut; urination would be interrupted suddenly and the act only completed by catheter. Patient thought he was only attacked during the new moon; at other times was generally free from all symptoms.

About 10th of July patient suffered an attack of suppression of urine; found it impossible to introduce catheter; filiform bougie also failed to enter. Another "bealing" was exhibited, pointing in scrotum at base of penis. This was lanced and contents voided, the bladder emptying itself through the new channel. In two days a second "bealing" was announced. This one pointed behind the scrotum and opened spontaneously about half way between base of penis and anus, discharging a large amount of pus, followed by the contents of the bladder. The urine was voided through this opening for several days, along with a large amount of pus. The family would not hear to an operation until the patient was in a very precarious condition and they were convinced that his life was seriously endangered by the condition present.

The operation was undertaken July 24th. The abscess opening was enlarged and perineum laid open for one and one-half inches. A sloughing, gangrenous, rotten mass came pouring out, followed by the remains of the prostate gland. An investigation showed that the mass of corruption was the urethra, which had been entirely destroyed, from the glans penis to the neck of the bladder. Lying along the track of the urethra and anchored by a cross piece to the neck of the bladder was a piece of wheat straw $3\frac{1}{2}$ inches long and enlarged to twice its usual size by calcarious deposits. This was removed, the stricture at the neck of the bladder divided and the whole tract and vesicle flushed out with Boracic acid and normal salt solutions. A tube was introduced into the bladder, gauze packed around it and the whole anchored. In two days the wound was dressed and the tube removed. The fourth day the wound was dressed for the third and last time. Patient seen three weeks after

operation and examined. The wound had closed, leaving a vaginal opening an inch long leading to the bladder, through which the patient voided urine and over which he exercised complete control when awake. He stated that in daylight he could retain the urine as well as ever, but at night when asleep it would dribble some. He was completely restored to health and had resumed his usual work, that of a day laborer on a farm.

Case No. V. Harriet T., act. 38 years; married, seven children. Five years ago had colic and was sick four days; went two years before she had a return of the colic. Then had colic regular, never going over four days without the pains, etc. About three years ago she noticed that she could not stoop and lean to right side; could not tie or button shoe on right foot. About six months ago noticed a small tumor in right side, which tumor was movable. When first seen and examined by me the tumor was as large as an orange, located a little to the right of the umbilicus, on right side, freely movable, and pedicle could be traced toward the liver.

Incision was made in median line above umbilicus and tumor exposed. It proved to be a distended gall bladder, about nine inches long and about eight eight inches in circumference. The tumor was pulled up into abdominal opening and contents voided with cyst trocar. This consisted first of a serous fluid, then followed bile stained pus, in all amounting to about one fluid pint. The puncture of the trocar was enlarged. Placing one finger in the opening and supporting cyst with my hand I removed from the duct four large stones, the largest about the size of an English walnut, the others being slightly smaller. Cyst was then flushed out with hot normal salt solution, the incision closed with double row of Lembert sutures and cyst dropped back into the abdominal cavity. Abdominal incision was closed by through and through silk worm gut sutures and the usual dressing of sterilized gauze and adhesive strips applied. The wound was not disturbed until the eighth day, when the sutures were removed, perfect union having occurred. The recovery of the patient was uneventful and complete.

Dr. T. E. Anderson rendered me valuable aid and assistance in this operation.

Case No. VI. Hettie W.; patient referred to me by Dr. E. E. Kluttz, of Troutman, N. C., with following history: Act. 34 years; married and mother of four children, youngest being five years old; patient had not been well since birth of last child; suffered from

headache, pain located in back of head and neck; painful locomotion, micturition and menstruation; leucorrhœa always worse after period, but not entirely ceasing from one period to another; constipation continuous; slept best when lying on her face; was dyspeptic. Examination showed a large and plastic uterus, which was not freely movable; purulent endometritis; tubes and ovaries could be palpated, being much enlarged. Patient was thoroughly curetted and purged and placed on tonic treatment preparatory to operation.

At end of 60 days patient placed on operating table, after usual local preparation had been completed. The abdominal incision was short, and located midway between umbilicus and pubes; the opening in peritoneum being shorter still. The right ovary was readily found, but was adhered tightly to the intestines. It had undergone cystic degeneration, one of the cysts being as large as a guinea egg, the others being smaller. The adhesions which bound the ovary and appendages to the intestines were so dense it was found necessary to tie off and cut the adhesive bands with scissors. As soon as the adhesions had been thus broken up, the ovary was pulled up into the incision. The broad ligament pedicle was transfixed by a needle carrying a loop of strong silk, the pedicle was tied and severed about a quarter of an inch beyond the ligature. The stump was carefully inspected, slightly cauterized with carbolic acid and dropped back into the pelvis. The arteries were ligated separately.

The left ovary was then sought for and found. There were no adhesions but there was present a hydro-salpinx. The tube was elongated, greatly distended and convoluted. The retained fluid was mucoid, limpid and chocolate colored. Sterilized pads were packed under the ovary and tube, which were then drawn into the incision and extirpated in the same manner as the right ovary and appendages. The abdominal wound was closed by through and through silk worm gut sutures, and, on account of the adhesions, sterilized gauze drainage was used for twenty-four hours. Sterilized gauze and cotton was used in dressing the incision, held in place by adhesive strips. Sutures were removed on eighth day, the wound being perfectly healed.

The only complication was persistent but intermittent vomiting, which persisted until the fifth day, necessitating the use of nutrient rectal enemata for that length of time.

I am indebted much to Dr. M. R. Adams for assistance rendered in this operation.

Case No. VII. Annie S., act. 21 years; married; one child three years old. The labor was difficult and prolonged, a midwife being in attendance; had never felt well after birth of child, menstruated regularly until marriage; there was dysmenorrhoea after birth of child, the pain, coming on at close of menstruation and lasting four to six days, was so severe that patient was unable to leave her bed during the time; the pain was sharp and lancinating, shooting and darting through abdominal region; locomotion was painful; headache was severe just preceding and after menstruation; whites was a constant source of discomfort to patient. Examination disclosed enlarged and tender ovaries, elongated, swollen; convoluted tubes. Salpingitis following or rather caused by gonorrhea endometritis was diagnosed.

Patient was carefully prepared for operation. The incision through abdominal wall, three inches long, was made midway between umbilicus and pubes. The peritoneal opening was not as long as that in the abdominal wall. The right ovary and tube were found, being much enlarged and showing results of an extensive and severe inflammation, and exhibited numerous black, gangrenous spots on the external surface. Adhesions were numerous. These were sewn off and cut with scissors. The uterine and ovarian arteries were sought for next and tied separately. The broad-ligament pedicle was transfixed by a needle carrying a loop of silk and the pedicle tied in two parts. Pedicle was severed about a quarter of an inch beyond the ligature and the stump cauterized and dropped back into the pelvis. While the left tube and ovary were in equally as bad condition as on the right side, the adhesions were not so numerous nor as well organized, and their extirpation was less difficult. At this stage of the operation, that is, while excising the right appendages and ovary, the excessive oozing gave warning that the patient was a bleeder, and I placed sutures at the side of all adhesions which had not previously been tied off. This, with the additional precaution I had taken, which is mentioned above, the separate ligatures I had placed on the arteries, controlled perfectly all hemorrhage or oozing from raw surface. The abdomen was flushed out with normal salt solution and the wound closed with through and through silk worm gut sutures, sterilized gauze and adhesive strips completed the dressing, and the whole was protected by a many-tailed bandage.

This patient made a quick and very satisfactory recovery. The only complication being a stitch abscess, brought on by her constant

and excessive squirming, turning and general restlessness during the first 48 hours. While she complained of no pain or inconvenience, it seemed well nigh impossible for her to maintain one position for five consecutive minutes. This constant strain and pulling on the stitches produced a small, circumscribed stitch hole abscess, which readily answered to treatment. The recovery from anaesthetic was quicker than usual. Natural action on third day, and there was no other event in her case save that mentioned. The temperature and pulse, after recovery from the ether, rapidly resumed their normal tone and so remained.

In this case I have to thank Dr. J. E. McLaughlin, of Cool Spring, N. C., for valuable assistance.

Case No. VIII. Harriet J., 65 years old; married; four children; menopause during 54th year; five years ago first noticed an enlargement in abdomen; was treated—with no apparent relief—for two years for ascites; tumor, or enlargement, continued slowly increasing in size. Came under care of Dr. Parks, of Olin, N. C., who soon recognized the character of her complaint, ovarian tumor, and advised operation. Patient sent to me for operation. After a week's preparatory treatment patient was placed on table. Field of operation had been prepared thoroughly beforehand.

The abdominal incision was made in the median line and was about five inches long, the unusual length being deemed necessary for proper manipulation of the tumor, which was of unusual size. The tumor being exposed, a large sized trocar, Emmet's ovarian, was thrust into it. Two gallons and a half of a thick, chocolate colored fluid was evacuated through the canula. The fluid was not only very thick, but also held in a suspension a soft, granular substance, which looked much like coffee grounds. When nearly emptied of its contents the trocar was withdrawn, the puncture was caught up with a figure of eight ligature and thus effectively closed. Sterilized gauze had been used to protect the parts and cavity during the draining of the cyst. The cyst wall was then drawn up and out through the incision. It was found that the omentum was adhered to the superior anterior wall of the cyst, and four or five inches of intestine was adhered to the posterior superior wall. The adhesion of the intestine was so firm that separation without grave danger to the integrity of the bowel could not be accomplished. This complication was met by dissecting the cyst wall between the outer coat and inner secreting membrane and leaving this portion

attached to the gut. The omental adhesions were so dense that it was deemed advisable to dissect off about eight inches of it, the resulting raw surface being caught up with numerous catgut ligatures. At the lower portion of the cyst cavity was a solid fibrous tumor, as large as a half gallon measure, from which the cyst seemed to have its origin, it forming part of the cyst wall. The left ovary, tube and neighboring portions of the broad ligament were surrounded and inclosed within the walls of the cyst. The pedicle was readily exposed, transfixed with pedicle needle carrying a strong silk thread, which was cut, thus forming two ligatures. Each half of the pedicle was tied separately, and in addition a separate ligature was placed around the entire mass and securely tied. An artery which supplied the tumor was also tied separately, the ligature being carried around it by means of a curved needle. The abdomen was flushed out with normal salt solution, sterilized gauze drainage placed in position and the wound closed with through and through silk worm gut sutures. The dressing was of sterilized gauze and cotton held in place with adhesive strips and protected with many-tailed bandage.

The cyst wall, tumor and fluid contents of the cyst weighed, when removed, exactly twenty-six pounds.

The convalescence of this patient has been phenomenal. Her condition when placed on the table was such we feared she would not survive the operations. The pulse was especially bad, being very weak, rapid and of uncertain quality. The respiration was labored and shallow. However, as soon as the weight of the tumor had been reduced by the removal of the fluid, and, of course, the pressure of it against the diaphragm, the pulse and respiration began steadily to improve. This improvement continued and at this writing, ten days after operation, the pulse and respiration are remarkably strong and full for one of the patient's age. On the 6th day after operation the wound was dressed for the first time in toto. The gauze drainage had been removed on the second day, but this was done without disturbing the dressing. The wound was found in good condition, having healed by first intention, and there was not the slightest discharge. The patient disturbed us considerably two hours after operation by suddenly, and with one effort, turning over on her side, placing a pillow under her head and going to sleep. The bowels were evacuated naturally on the second day. There has been no temperature, no nausea, no complication of any kind; the organs

of secretion have been active and the discharges have been normal. It has been an ideal case from beginning to end.

Certainly the country surgeon should not hesitate to undertake an operation because he has no hospital operating room at his elbow. Sepsis can be prevented and asepsis maintained anywhere. The room and furniture have little or nothing to do with the success of an operation. An aseptic operation depends entirely upon the operator and his assistants. This last case was treated in an old camp house, 15 by 25 feet in size, containing one room in which six persons beside the patient ate, slept and lived. It was a tumble-down house with plenty of ventilation through walls, roof and floor.

The bichloride solution is only used to cleanse the hands and the field of operation. It is never introduced into the abdominal cavity.

The normal salt solution is used for sponging purposes, to flush out the abdominal cavity or site of wound if not in a natural cavity, and as a rectal enema immediately after the operation and before patient is taken off the operating table. Should there be profound shock after operation or from an accident which demands an operation, large quantities are introduced directly into the loose tissues of different portions of the body.

Kelly's method of avoiding all possibility of hemorrhage in operation for ablation of the uterine appendages is followed. This is the tying, separately, of the uterine and ovarian vessels. Ligatures of small catgut are used freely to control bleeding from raw surfaces made by breaking up adhesions.

In these, as well as in many other surgical operations I have done lately, I am indebted to my friend, Dr. R. A. Campbell, not only for direct assistance in operating but for aid in the preparation and after treatment of my cases.

**Reported to the Louisville Clinical Society. (1) Fecal Impaction :
(2) A Case for Diagnosis. (Abstract.)**

By JOSEPH M. MATHEWS, M. D.

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Stenographically Reported for this Journal by C. C. Mapes, Louisville, Ky.

A PATIENT from the South presented letters from two physicians explaining his case: One declared that he had an enlarged prostate the size of a fist which encroached upon his rectum and interfered with the passage of fecal matter; that because of this he had difficulty in urination. The other physicians agreed with the first, but stated in addition to the enlarged prostate I would find the patient had a rectocele (?). I say rectocele with an interrogation point, because there was no protrusion from the rectum, and I cannot understand why it should have been supposed that the man had a rectocele.

I found the patient to be seventy-two years of age, with a robust constitution, fine physique, who had been in excellent health until within the last two months, when he complained of frequent desire to defecate, with involuntary passage of feces, some difficulty in urination, a heavy weight in the perineum or a continual sense of discomfort in the rectum as if he desired to go to stool.

After reading the letters I remarked that the case might be out of my line, but said: "Suppose you allow me to make an examination?" Introducing my finger into his rectum I found his prostate perfectly normal—if I may be allowed the expression more than normal to a man of his age—there was no enlargement. I found no pathological change in his rectum, with no history of protrusion; but pushing my finger into the gut I found a large ball of fecal matter in the sigmoid flexure, and then suggested that his case did all in my line. At the infirmary the following day under chloroform I dilated his sphincter muscle and inserting my finger into his rectum detected a fecal impaction as large as a fetal head in the sigmoid flexure. It was of the consistence of putty—nearly of glue—a white mass; introducing an instrument, a large curette which carried a stream of water behind it, I broke down and scooped out much of this clayey mass, but found it impossible to remove one-tenth of the quantity present. I was afraid to handle an instrument in the sigmoid flexure because of danger of wounding the gut,

but I broke down the mass effectually. The next morning he was given a purgative and a high irrigation of the colon, and in five days he succeeded in passing the entire mass, which was a very large amount. He returned home entirely relieved of all symptoms.

I have witnessed but two impactions of fecal matter in the sigmoid flexure, and they were both produced by the same cause, viz: the eating of oatmeal. The father of the Health Officer of Louisville died from impaction of the sigmoid flexure produced by oatmeal eating. He had some disturbance of the digestive apparatus and concluded to eat oatmeal exclusively for a number of days extending into weeks—he had the same character of impaction and died

The patient the subject of this report said he had some disturbance of the bowels, and concluded to live upon oatmeal—at least making his breakfast entirely of it—and I am led to believe the aged especially should avoid this diet, and it might be well to give the same advice to those not aged. In reply to the question if any evidence of fecal impaction was discovered by external examination, I will say the patient was very fleshy and nothing could be detected through the abdominal wall.

Case 2. Three days ago I was called to Knoxville, Tennessee, to see a patient and give an expert opinion in a case of rectal trouble. I found the patient was a prominent citizen of Knoxville, and a very intelligent man. Ten days previously his physician had left the city leaving the patient in charge of a younger member of the profession. Before I interviewed the patient I asked that this physician be summoned; he stated that the patient had some rectal ulceration, (so he had been told by the older physician) but had never himself examined the rectum; that the disease had existed several years, the treatment of the older physician having extended over several months, his method being probably the application of nitrate of silver and agents of this class. The patient was forty-five years of age, and to judge from his physical appearance was in a rather healthy condition. Introducing my finger, which is the best method of examining the rectum, I found between the two sphincter muscles a sinus, or hole, one inch in depth; above this another sinus, or opening, running around laterally about one inch. Further up on the perineal side there was an infiltrated condition of the tissues (not an ulceration because the mucous membrane was in-

tact) to the extent of two silver dollars put together, and directly above, a polypus the size of my finger, at the entrance of the sigmoid flexure, that evidently played above and below. The man gave a history of diarrhea, having occasionally passed clotted blood and some mucus from the rectum. Two weeks before my visit he said to his physician: "I am feeling so badly that I believe I will go to bed." After going to bed he decided to live upon a milk diet, which he had done for ten days before I saw him, still the bowels were acting eight or ten times a day.

After examination I proposed to remove the polyp by applying a long clamp, cutting off the polyp and leaving the clamp for a short time, then to divide the sinus in the rectum below, trimming the edges to encourage healing, and trust to the other condition (which I took to be from irritation) to be absorbed by nature. I moved around to the front of the bed to explain the condition to the patient, and looking into his face did not like his appearance, and asked him to let me examine his tongue; he put out a tongue which was red, coated and furred; he told me his physician stated before leaving that this condition of his tongue was from the milk he had been taking. I asked the attending physician what the patient's temperature was, and he said he had never taken it. The thermometer showed a temperature of 101° F., and the man said he had great pain at times throughout his abdomen. He was at that time more or less lethargic, and I found that he had a tympanitic belly which was extremely sensitive to the touch.

In the consultation room I said: "Doctor, this man, in my opinion, has typhoid fever. He now has peritonitis, and I consider him in a dangerous condition and cannot of course under the circumstances operate at all." Last night I received a dispatch from the patient's wife (and the case is reported more to get your advice) reading as follows: "Fecal matter is coming from the bladder; will this be fatal?"

It is plain the attending physician believed all the symptoms originated from the patient's rectal trouble; there was no rectal trouble *per se* to give rise to the symptoms present. Again, no account of the temperature, pulse or tongue had been recorded, and the patient had not been visited by his physician for ten days.

What I desire to ask is, has this man typhoid fever? I think he has. Has he peritonitis, septic or otherwise, independent of typhoid fever? What is the meaning of this dispatch? There can be no

communication between the bladder and the bowel in this case, in my opinion, except through the rectum. Is it that the ulceration manifest in his rectum—which in its entirety showed to me to be covered by mucous membrane and was not ulceration at all—has been percolating fecal matter into the bladder and out through the urethra? If so, as he has never passed fecal matter through the bladder before, what part does that play in his trouble? That this man is seriously ill I do believe, if not fatally ill, that his symptoms do not occur from his rectal trouble I am perfectly satisfied, and my honest belief is that he is now and has been for a number of days suffering with typhoid fever. I also ask what is the cause of the peritonitis? The case has given me a great deal of anxiety. His temperature when I left him was 102° F. and showed a rise at night. He said to me himself: "Doctor, I have been having fever for three weeks." He said before he went to bed he had a temperature of 102° F.—I am not aware how he knew this.

Now, the question is whether or not the sinus running around the gut laterally has communicated with the bladder since I saw the patient. I could find no such communication at the time I examined him. Perhaps I made a correct diagnosis, and perhaps not. To me the man presented almost a typical case of typhoid fever. His rectal trouble did cause him to have a temperature of 102° F., with a typical typhoid tongue and almost a typhoid condition. Understand me that he had passed fecal matter from his bladder or urethra, and there was no such history at the time I saw him, but a message comes last night stating that he "is passing fecal matter from the bladder." What connection has the peritonitis with this fact, or has it any?

DISCUSSION.

Dr. T. P. Satterwhite:

I am doubtful whether fecal matter passed from the bladder. There is no history of ulceration that would cause such a connection; also if there was a communication between the bowel and the bladder the urine would escape through the bowel and very little through the urethra, and as there is no account of urine passing through the bowel I doubt that fecal matter passed through this channel.

Dr. August Schachner:

To answer the question whether or not this is a case of typhoid fever one would have to see and study the case thoroughly in all its

aspects. There must be some active ulceration going on; this is evident from the fact that there has been progression since Dr. Mathews' visit. It has gotten into the bladder if the information given in the telegram is correct. It is progressive whatever it is.

As for typhoid fever, it may or may not be a case. I do not see how any of us without having seen the case can state positively that it is or is not typhoid fever. It is evident from Dr. Mathews' statement that there is some inflammatory process going on about the rectum, and it must be rather extensive to have made a perforation into the bladder, which is true if the observation is correct as noted in the dispatch.

Dr. Louis Frank:

The symptoms Dr. Mathews has mentioned we know are the prominent symptoms of typhoid fever, but we also know they might be due to a septic process from active ulceration about the rectum, or at least to the absorption of septic products. However, it strikes me as rather improbable that an ulceration existing for so long with such a free outlet for the pus and the natural discharges here, should now extend rapidly and lead to perforation of the bladder. It might be a perforation from typhoid fever into the bladder, or an opening may have occurred higher up which would allow the escape of fecal matter through the bladder.

Dr. W. O. Roberts:

Both cases reported by Dr. Mathews are of great interest: In regard to the case of fecal impaction—where the patient was having frequent actions from the bowel—we meet with such cases not infrequently. I saw a man yesterday whose leg was amputated some months ago, who was troubled with frequent evacuation and was treated before I saw him for diarrhea. I believe I removed fully a quart of fecal matter from his rectum. I have had several such cases recently, and it is perfectly wonderful how much fecal matter the rectum and sigmoid will hold. I removed fecal masses from a patient not long ago almost as hard and felt like rocks. The patient told me he had been operated upon for hemorrhoids some months before and when I put him on the table for examination and went to introduce my finger into the rectum I found that I could not do so. By careful inspection I found an opening so small I could scarcely get a lead pencil through it. Under chloroform I divided the stricture and then dilated this with a Cook speculum, and the masses that I removed from his rectum were

as hard as lumps of clay, perfectly enormous in quantity, notwithstanding the fact that the patient had been going about attending to his business. Another patient was a female whose leg was amputated at the hip joint several years ago. She had a number of fecal fistulas, one extending into the bladder.

As to the other case: It is more likely sepsis than typhoid fever.

Dr. Wm. Cheatham:

If the ulceration extended into the bladder from the rectum, the natural inference would be that urine would pass through the rectum rather than fecal matter through the urethra, especially as there is no obstruction in the rectum.

Dr. P. Guntermann:

If I understood Dr. Mathews correctly he said there were two or three strictures or sinuses in the rectum, one extending around the gut in front across the perineum—whether he meant this or not I do not know—that he could sweep his finger around toward the perineum and feel this old stricture, sinus, core or whatever it may be, which had been treated for years by a good man with applications of nitrate of silver, etc. There must have been some serious condition about the rectum otherwise the doctor would not have made local applications of the nitrate of silver. Now Dr. Mathews inserted his finger into the sinus and curved it around one inch, he said; might he not possibly have done some damage by this manipulation? Might not his finger possibly have entered or nearly entered the bladder? Of course the rectal polyp we will say nothing about as it could not have played any part in the discharge of fecal matter through the urethra. After the doctor made his examination within twenty-four hours he received a message that fecal matter was being discharged from the bladder: I rather feel inclined to believe that there was an ulceration of the rectum, and that by manipulation some damage may have been done.

Dr. Geo. W. Griffiths:

The whole matter as to typhoid fever and the cause of the elevation of temperature is purely guess-work. Only one observation was taken which showed temperature 101° F., and pulse 120. There is not a complete record of the case. I do not think that any medical society on the face of the earth can tell whether the man has typhoid fever or not without having a chance to make a thorough examination. I am frank enough to state, however, that

I believe any diagnosis made by Dr. Mathews would be based upon good, sound judgment. If he says it is a case of typhoid fever I am willing to agree.

Dr. Carl Weidner :

The first case reported by Dr. Mathews should be a lesson to every practicing physician, and he ought to be lauded for bringing the case before us. It is comparatively a simple condition to detect, still it is overlooked by many physicians, and shows that we are all liable to make mistakes. I have seen several marked cases of fecal impaction following typhoid fever, the rectum being distended with hardened fecal masses that felt not only like clay, but like stone or sandstone. I think in typhoid fever especially we should watch patients carefully and towards the end of the disease not allow them to go more than two days without a fecal evacuation.

As to the second case : I must say from Dr. Mathews' report of the case I am like the other gentlemen, just as much at sea as one could possibly be. Dr. Mathews being the only member present who has seen the case, and being an able diagnostician, certainly his opinion is entitled to more consideration than that of those who have not examined the patient. I could not help thinking, however, while listening to his report, that he made rather a hasty diagnosis of typhoid fever. We know that patients with typhoid fever will sometimes be up and around until about the time ulceration takes place. Usually, however, especially in grown persons, they are sick enough to go to bed. I agree with Dr. Schachner and others that there must have been some progressive condition of the bowel to account for the chronic course as stated. It would require very hash treatment to produce artificially the condition of the rectum described. I would like Dr. Mathews to tell us whether the edges of the diverticulum were rough and uneven ; it certainly looks like chronic ulceration ; then again he found an inflamed patch higher up in the rectum ; also found a polyp ; all of these conditions point to some chronic inflammatory process. The rectal condition alone may have been sufficient to cause the symptoms present, elevation of temperature, rapid pulse, etc. It certainly must remain an open question whether it is typhoid fever or not.

I had in mind when the doctor reported the case, on account of its chronicity, the possibility of *tubercular* trouble. Tubercular infection would account for the symptoms detailed. Medicine makes progress, and I would suggest that light might have been thrown on

the case by the new blood serum test for typhoid fever originated by Pfeiffer and Widal. By means of this test we are able to make a positive diagnosis very quickly. Of course under the older methods we can usually make our diagnosis after so many days, especially if we watch the patient from the beginning of the attack. In suspected cases of typhoid fever by examining the blood by the specific reaction of the typhoid serum, as it is called, upon cultures of the typhoid bacillus, we have a positive means of confirming the diagnosis.

In the case Dr. Mathews has reported I think a post mortem will probably have to be made before we can make a positive diagnosis.

Dr. W. H. Wathen:

The result in the first case shows conclusively the wisdom of making thorough examinations and in perfectly carrying out the treatment. I have not had a very extensive experience with fecal impactions, but have known of several such cases. Eight or ten years ago Dr. Mathews reported to one of the medical societies of this city that the rectum occasionally reversed its peristalsis and fecal matter was returned from the rectum up into the sigmoid flexure. I did not believe there was anything in this, thought it was one of his beautiful theories that he could not prove, and said nothing about it. Three years ago he asked me to go to the Infirmary and examine a lady for some pelvic trouble. He had examined her on several occasions, but could find nothing wrong, still she always complained of fecal matter in the bowel that she could not get away. Dr. Laws had also examined the patient on several occasions and the rectum had always been found empty. As soon as I introduced my finger into the vagina I found that the rectum was crowded with fecal matter which was very hard, and I took occasion to properly deal with it while it was within reach. The fecal matter was removed from the rectum as thoroughly as possible and as quickly as it could be done. This case demonstrates the correctness of Dr. Mathews' theory of reversed peristalsis of the rectum. There can be no question about this, because there was a large quantity of fecal matter present which had been accumulating perhaps for weeks or month's, the patient having been examined many times previously and the rectum was always found empty.

Dr. W. C. Dugan:

The second case reported is one of great interest to me. There is no question about its being a typical illustration of what is known

as the "typhoid condition" but I am not ready to accept the diagnosis of "typhoid fever." I am satisfied the condition Dr. Mathews described is an internal fistula extending up one inch, and that this has perforated into the bladder. Dr. Weidner may be correct that the trouble was originally tuberculous in character, and that it has now taken on septic infection. I agree with Dr. Schachner that there must be trouble higher up in the fossa just under the peritoneum and possibly pus has worked its way upward and the patient has peritonitis from that cause. This, however, is merely guess-work. Of course it is possible that it is a case of appendicitis, that the appendix has fallen down into the pelvis and become attached to the bladder. Everyone who has operated upon many cases for appendicitis has probably met with such cases. This is a possible explanation; at any rate I am satisfied the pus or ulceration has extended into the bladder from the points Dr. Mathews found in the rectum, and that it is a septic typhoid condition from which the patient is suffering. While I say I am satisfied of this, still it may be tubercular.

Dr. T. P. Satterwhite:

With reference to Dr. Mathews' remarks concerning restriction of that exceedingly valuable article of diet, oat meal. I do not know of any class of people who live more exclusively upon it than the Scotch, and it would be interesting to know if the Scotch are any more prone to fecal impactions than any other class of people. It is a food that is so exceedingly valuable especially to younger people as it is loaded with phosphates, that we ought not, I think, to try to restrict its use without it is very clear in our minds that it is an injurious article of diet. It is a very nutritious article of food, it is comparatively inexpensive, it is largely used by certain classes of people, and its restriction should not be advised unless there is positive evidence against it. It would like for Dr. Mathews to tell us in closing the discussion whether in his reading he has found that the Scotch people are troubled to a greater extent with fecal impactions than other classes.

Dr. J. W. Irwin:

The cases detailed have been of great interest to me, especially the very excellent report of the first case made by Dr. Mathews. The second case is not so clear, it is not so well reported, there remains about it a great amount of doubt. To express a useful opinion with the limited information before us would, it seems, be a

difficult matter to do. We cannot well say that this is a case of tuberculosis, coming on so suddenly, without the patient showing indications of the disease elsewhere. If it is tuberculosis it must be a chronic form, and there must be manifestations of the disease in other parts of the body. If it is a case of typhoid fever it certainly must have passed over a period of three weeks, or to that stage when ulceration ensues, but we have no history of the grave symptoms that we usually observe in perforations. All the perforations I have seen, no matter where they occurred, have been accompanied with a great amount of shock and other grave symptoms. We have in this case no evidence of intense shock. I recall two cases, one of them occurred in this city, where ulceration of the appendix ensued in typhoid fever about the twenty-first day, and autopsy revealed that by some mysterious process the appendix had become adherent to the bladder, and the ulceration had penetrated the coats of the bladder in both instances and the patients passed blood from the urethra following the shock of perforation, both patients died and the autopsies revealed the condition described.

Touching the question raised by Dr. Cheatham: I am glad he asked the question if ulceration of the rectum ensued, why is it that leakage did not occur into the rectum from the bladder, the urine passing out through the rectum, rather than fecal matter escaping into the bladder and passing out through the urethra; the latter according to all laws of gravity would seem impossible, but there are no impossibilities in medicine. The ulceration might have taken place higher up. The opening may have been small and fecal matter may have passed through the urethra but it must have been a very small quantity, if such a thing occurred. As to whether it is a case of typhoid fever or not must remain an open question. We certainly have not the history of a tubercular process that would bring about such an ulceration as has been referred to. We have not the history of typhoid fever that would bring about such a condition as to have fecal matter discharging through the bladder, but whatever the trouble is it seems to be a grave one, and time alone will reveal all the facts.

Dr. J. M. Mathews:

I have been misunderstood in one particular. I did not make the positive diagnosis of typhoid fever. After I examined the man and consulted with his physician, I said that the patient certainly had peritonitis, and the question is what could have caused it? I am

sure the condition found in his rectum could not have been responsible for it; I made this statement at the time and am still positive about it. The man had been ill nearly three weeks, he was ill enough to say to his physician two weeks before I saw him, "I feel so badly (physically, not from pain or disturbance in his rectum, but so badly in a general way) that I must lie down, I believe I will go to bed." The condition whatever it is had then evidently existed for a week. Prior to that time (i. e. three weeks prior to the time I saw him) he had had no peritoneal trouble nor pain so far as I can learn.

Let us consider some of the questions brought up in the discussion: Anatomically where were the openings or sinuses I have described? They were just inside the verge of the anus, just above the external sphincter muscle, and I could introduce my finger into the openings about one inch. I operated upon a young girl (twenty-two years of age) this morning having exactly such a condition. She had no elevation of temperature, and no evidence of fever, no acceleration of pulse, no coated tongue, and said she had suffered with the condition for over a month.

Suppose I could hook my finger into the opening for one inch, where would it go? Simply into the tissues around the rectum and not towards the bladder. It would not reach the bladder within three inches. The lower part of the rectum, so far as the sinus is concerned, has nothing to do with the bladder. I found an infiltrated condition, but not an ulcerated process, two or three inches above, not over the bladder, it was not contracted, there was no pain, it was perfectly smooth, and above that I found a polyp. I cannot conceive of a perforation in that portion of the bowel which in twenty-four hours would give evidence that could not have been detected when I saw the patient.

As to the question of sepsis: That diagnosis occurred to me, but I watched the patient through the day. When I examined him at eight o'clock a. m. his temperature was 100° F., at noon it was 101° F., at 7:30 p. m. it was 102° F. Is that the way sepsis deports itself? Not at all. I feel confident that later in the evening his temperature was 103° or 104° F., and have asked that the chart be sent me. In sepsis we have collapse, sweats, etc.,—there is no such history in this case. The man had been sick with fever for three weeks, there were as no wetting of the bedclothing with perspiration, no shock, and there was no evidence of collapse up to the time I left, with a pulse of 120 or perhaps higher. After observing

the patient for twelve hours I said to his doctor, this is a peculiar history, the temperature varying, a gradual rise in the afternoon and evening, reaching 102° F., without any evidence of collapse or sweating, with the history that he has felt languid and sick for two weeks, I cannot help but have it in my mind that this man has typhoid fever and has had it for at least two weeks. At my first examination I believed the trouble was sepsis, but why should he have sepsis? Has not every surgeon or physician in this room witnessed tubercular ulceration of the rectum even to entire destruction of the gut, of the rectum proper, without any peritonitis? I have seen such cases time and again. I saw such an one to-day, and there will never be any evidence of peritonitis unless there is a perforation. If there is a perforation in the case I have reported, where is it from? We would naturally think from the rectum to the bladder; but Doctor Cheatham's question is pertinent here: If there is a perforation from the rectum into the bladder, why does not urine discharge from the rectum instead of fecal matter from the bladder? I confess the case is rather an enigma.

As to Doctor Guntermann's remarks: My examination was very simple, I did not use an instrument, simply inserted my finger into the rectum and pushed it down into this internal fistula or sinus. It certainly could not have gone three inches forward and jumped into the bladder; we could not have a perforation from that cause.

I am impressed that this may be a tuberculous degeneration of the gut, it may be more extensive than I imagine. If this man has not typhoid fever, I am inclined to believe the destruction caused by the ulcerative process in the rectum comes from a tuberculous degeneration. He has lost flesh within the last year, which I failed to mention in my former remarks. He has no other evidence of tuberculosis. Still you may have tuberculosis of the rectum without evidence of it elsewhere. However, that may be, the point I want to impress upon the society is, here is a prominent man that goes without attention in one of our principal cities where there are many good physicians, for two weeks, one of the best physicians having previously attended him, without any reference to either the peritonitis, typhoid fever, sepsis or anything else, simply upon the idea that his rectal trouble is all that exists, that it must be giving rise to any other symptoms present, and which were really not detected at all, as for instance the high temperature, con-

dition of the tongue, tympanites—these were entirely overlooked. I am called, and find the man in a dangerous condition; to what that condition is attributable I must confess I do not know. I simply relate the case which has some evidences of typhoid fever, some evidences of sepsis, and the question is what has caused it?

As to fecal impactions in the Scotch and Irish compared with other people: I have no statistics to present. The fatal case I referred to which occurred in Louisville was a very pointed one, because the patient told us he had lived exclusively upon oatmeal for two or three weeks. In one other instance I have seen fecal impaction from the same cause. We can remove an impaction from the rectum very easily, but from the sigmoid flexure it is quite a difficult matter, and people often die as a result of fecal impactions of the sigmoid. It is easy to overlook fecal impactions in the sigmoid flexure. I have recalled one case where there was an enormous impaction of the sigmoid which was not detected in examinations made by two excellent physicians.

While I do not know the statistics on this subject from the standpoint of the Scotch, I am satisfied of this position from observation, that in the aged oatmeal should be used sparingly and those eating it should be carefully watched. It may be all right for younger people to partake of it. I realize that it has always been regarded as an excellent article of diet, and may be eaten without deleterious effect by those who have no atony of the bowel.

North Carolina Medical Journal.

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Editorial.

ANNOUNCEMENT.

The NORTH CAROLINA MEDICAL JOURNAL has for so many years been identified with the profession in this State (being for the greater period of its career the only medical publication in the State), that any change in its fortunes must be of more or less interest to the physicians of North Carolina. To the older members of the profession, who recall its first editors, its early struggles and its close connection with the State Medical Society, which in fact it was largely instrumental in building up, this interest in the welfare of the Journal is peculiarly strong. To them and to that larger class of younger men who have entered our ranks during more recent years, the present editors promise a Journal in every way worthy of the name.

Appreciating the fact that he who would succeed must first deserve success, it will be the earnest endeavor of the new management to conduct the Journal squarely in line with the best and highest interests of the profession, to furnish an abundance of good reading matter printed and gotten up in the best form. To this end the Journal has been considerably enlarged both as regards the size and number of pages.

TRI-STATE MEDICAL SOCIETY.

Through the kindness of the Secretary, we have an advance copy of the program of the first meeting of the Tri-State Medical Society of Virginia, North Carolina and South Carolina, which will be held in Charlotte, N. C., on January 18th, 1899. A number of prominent members of the profession are down for papers, and judging from the program the first meeting can hardly fail of both profit and pleasure. As had been previously noted the committee of organization very wisely passed a rule admitting only those to membership in the Tri-State Society who were also members of the respective State Societies where they reside. This relieves the fears of some, who were apprehensive lest the new organization should prove detrimental to the State Societies.

It is needless to say that we extend a most hearty welcome to the brethren from our sister States and shall do all in our power to render their stay among us a pleasant one. We are favorable to all associations for the advancement of medical science and the promotion of fraternal relations among physicians. The South has too few organizations of all kinds, and this is as true of medicine as of anything else. The interchange of ideas and the contact of minds interested in a common subject cannot but be broadening and helpful to all concerned, while the social feature of such a meeting is also ample recompense for the time and money expended. We give on another page a list of the papers to be read, as furnished us by the Secretary.

THE SPREAD OF CHRISTIAN SCIENCE IN THE UNITED STATES.

The notable case of Capt. Harold Frederick, who recently died in England under the ministrations of a so-called Christian Science "healer," has attracted wide-spread attention to the peculiar rites and practices of this sect.

Similar instances to that of Capt. Frederick are almost daily reported in the lay and medical press, and so far as we have seen the practice has met with universal condemnation. Nevertheless this fad seems to have taken strong hold of a certain class in this country, if we may judge from a statement of Carl Norton, made in an address delivered in Brooklyn, in which he says there are 7 Christian Scientist churches in New York City, and 13 more in the immediate vicinity of the Metropolis; 38 churches in the State of New York and about 30,000 adherents of the faith in that State.

He claims that there are one million Christian Scientists in the United States. It seems strange that the American people in most matters practical and hard-headed, should furnish a community favorable to the development and propagation of a "system of cure" that has about as much to recommend it to a rational individual, as has the beating of tom-toms and blowing of cow horns, employed by the savage inhabitants of the dark continent to drive away the evil spirit of disease. In books of travel, or in the reports of missionaries this "system of cure" as practiced by the heathen for the relief of his sick wife or child, is given as one evidence of his ignorance and barbarity. It is difficult to see wherein the modern "healer" of Christian Science serves humanity any better, or has a more reasonable "system of cure" than the medicine man of the savage.

A CURE BY PROXY.

Chas. Broadway Rouss, the New York millionaire, who has made a standing offer of one million dollars to any person, lay or professional, who would restore his eye sight, is threatened with suit by Dr. Geo. H. Cassidy, of Manhattan. It seems that Mr. Rouss employed a blind man to travel around the country visiting specialists or quacks, as the case might be, for the purpose of being experimented upon. In case of the proxy being successful in his search for light, Mr. Rouss was immediately to take the same treatment and deliver the million. Dr. Cassidy claims that he has cured the proxy, hence if Mr. Rouss does not avail himself of the treatment it is his own fault, but he must forfeit the million. Mr. Rouss holds, however, that his proxy's eye sight has not been restored. All now depends on the statement of the proxy, who being blind has a profitable job, which on regaining his sight he must lose. The end of the contest will be looked forward to with interest.

News and Items.

The Philadelphia Medical Journal has decided to discontinue its exchange list after January 1st, 1899.

New York Polyclinic.—Dr. Charles H. Chetwood has been appointed professor of genito-urinary surgery, and Dr. Frederick Whiting, professor of otology.

Another Victim of "Christian Science."—Marjorie Campbell, aged 9 years, of Tacoma, Wash., is the latest victim of "Christian Science." Her parents, being devotees of the "occult science," employed no physician for their daughter, who eventually died of heart-disease.

The Painless Extraction of Teeth.—According to the *Journal of Medicine and Science*, a Rhode Island jury recently decided that a dentist must not advertise to extract teeth by a painless process and then rack patients with excruciating tortures. In a suit for damages in a case of this kind, brought by a woman in Providence, the jury awarded the plaintiff \$500.

Premature Coroner's Verdict.—Rev. J. H. St. Clair, of Decatur, Ala., was reported dead on November 24th, and the coroner having been informed that he had taken 15 grains of morphine, rendered a verdict of suicide by morphine-poisoning. On the following day the Rev. St. Clair, having recovered from his overdose of morphine, to which drug he is said to have been addicted, came to life, and is now reported to be in the enjoyment of good health, despite the fact of having been officially declared dead.

Persistence of Hymen.—Cullinan reports a case of persistence of the hymen in a married primipara, aged 25 years. The points of interest were as follows: (1) The non-rupture of the membrane, although the patient had been married 11 months; (2) the membrane itself was of fibro-elastic consistence and extremely dense; (3) the small opening, allowing impregnation to take place; (4) the abnormal sensitiveness of the parts; (5) an unusually large clitoris; and (6) the obstruction caused during the second stage of labor, with the amount of force necessary to cause rupture. From a medical point of view cases of this kind are of much importance.—*Philadelphia Medical Journal*.

Bullet in His Heart 37 Years.—In the Cincinnati *Lancet-Clinic*, Dr. O. B. Beer, reports briefly the case of a man in Jackson County,

W. Va., who during the civil war was shot by "bushwhackers." The bullet entered the chest posteriorly on the left side, between the second and third ribs, and coursed downward and inward, passing through the left lung and pericardium, and imbedding itself in the wall of the heart, near the lower part of the left ventricle. After being wounded, the man was left on the field for dead, but he eventually recovered and thereafter persisted in the assertion that the bullet was still in his heart. Before his death, which occurred a short time ago, he requested that a necropsy be performed to ascertain the facts. This was done by Dr. Beer and Dr. G. O. Brown, with the results noted.

The Importance of Early Diagnosis in Injuries of the Abdomen is well illustrated in the case of a child that falling from a wagon and striking her abdomen on a brick, died 18 hours afterward. The symptoms of internal injury developed with astounding rapidity, and, though there were no signs of injury to the superficial structures, there was found at the operation, performed 15 hours after the accident, a perforation of the intestines and strangulation of 3 feet of bowel, which had passed through a loop of the mesentery.

"Christian Science" and the Iowa Judiciary.—The Iowa judiciary is evidently free from all taint of "Christian Science," if one may form an opinion from a recent decision. A litigant was so illogical as to seek pecuniary redress for injuries said to have been sustained by falling into an unprotected areaway and to have been "cured" by a practitioner of this latter-day "science." The verdict was that injuries which "Christian Science" could heal must have been wholly imaginary, or so nearly so that their estimation in dollars and cents, or even in cents alone, is impossible. The derisive laughter of interested spectators is said to have accompanied the "unfortunate" litigant as he betook himself from the court-room. Evidently the Court thought, with the miracle-monger whom the plaintiff consulted, that his wounds and bruises were merely "mortal thoughts" and nonexistent as soon as he chose to make them so.

Koch's Disappointment.—The *British Medical Journal* quotes from *La Tribuna* of Rome a somewhat amusing story about Koch, who has been studying malaria in the hospitals of the Eternal City. In the Santo Spirito he came across a patient with pernicious malaria, admitted apparently in a dying state. He ask that "this body" might be kept for his examination. The next day he went

intending to make the necropsy, and was amazed to find a living man sitting up in bed to all appearances cured. The "corps" greeted the professor with a significant smile. The cure had been wrought by the intravenous injection of quinine, according to Professor Baccelli's method.

A Nurse's Knowledge.—The advantages accruing to the modern trained nurse from a familiarity with technical medical terms are shown by the recent remark of a nurse in attendance upon a man suffering from vesical retention. The patient had for some days been obliged to make several futile attempts in each case before accomplishing the function of micturition. Finally relief came, and the nurse saluted the doctor at his morning visit with the cheerful words, "He passed water today *by the first intention.*"—*Boston Medical and Surgical Journal.*

Rudolph Virchow, German Scientist.—Honors continue to fall thick and fast about the distinguished discoverer of the cellular theory in pathology, rector of the University of Berlin, and early advocate of international disarmament. He is one of those rare men who seem to have time for everything; with all his pressing duties, he is constantly rushing to various parts of Europe to attend meetings scientific societies of which he is a member.

Only the other day he made a flying trip to London to partake of a formal dinner given in his honor by the great medical men of the United Kingdom.

The political economist who irritated the brusque Bismarck into challenging him to a duel; the scientist on whom the French Government conferred the rank and insignia of a commander of the Legion of Honor two years ago; the surgeon who received from admirers in all parts of the world a gold medal weighing nearly six pounds, and having an intrinsic value of \$1750, on his seventieth birthday; the university professor, editor, technical writer and broad humanitarian, is, today, at the advanced age of seventy-seven, one of the foremost among the really great men of the world.

Necrology.

DEATH OF DR. JNO. B. HAMILTON.—Dr. Jno. B. Hamilton, editor of the *Journal of the American Medical Association*, and professor of surgery in the Rush Medical College, and in the Chicago Polyclinic, died at Elgin, Ill., on Dec. 24th, 1898, aged 51 years.

Dr. Hamilton was a man of international reputation, being for the greatest part of his professional career connected with the Marine Hospital Service in which he attained the position of supervising Surgeon General. In 1891 he resigned this position and withdrew altogether from the Government service in 1896.

In addition to being an editor and professor, he was at the time of his death, superintendent for the Illinois State Asylum for the Insane, and consulting surgeon to several Chicago hospitals. He died in the prime of life of peritonitis.

Sir William Jenner, who recently died in England, was the grandson of the discoverer of vaccination, and the most trusted medical adviser of the Queen. For many years he was the acknowledged leader of the profession in England; to him being chiefly due the credit of having finally placed beyond all doubt the non-identity of typhus and typhoid fever. He was a great worker, and for many years his professional income is said to have been between \$50,000 and \$75,000 per annum. He spent the last ten years of his life in retirement.

Programme of the Tri-State Medical Society.

WEDNESDAY, JANUARY 18TH, 1899.

11 a. m.—Opening of the First Annual Session.

1. Divine Invocation—Rev. H. F. Chreitzberg, D. D., Charlotte, North Carolina.
2. Address of Welcome on behalf of the Profession and the Citizens of Charlotte—Col. H. C. Jones, Charlotte, North Carolina.
3. Response to the Address of Welcome—Dr. Hugh T. Nelson, Charlottesville, Virginia.
4. Address by the President—Dr. W. H. H. Cobb, Goldsboro, North Carolina.
5. Executive Session.
Reports of Officers.
Reports of Committees.
6. Registration of Members.

PAPERS.

1. Purposes of Tri-State Medical Organizations—Dr. Paul B. Baringer, University of Virginia, Virginia.
2. Pseudo Membranous Enteritis—Dr. J. M. Fladger, Summerton, South Carolina.
3. Cold as a Remedial Agent—Dr. E. B. Glenn, Asheville, North Carolina.

4. Lithemia—Dr. J. N. Upshur, Richmond, Virginia.
5. Blood-washing and Blood-letting—Dr. A. B. Knowlton, Columbia, South Carolina.
6. The Early Recognition of Pulmonary Tuberculosis and of the Pre-Tubercular State—Dr. Charles L. Minor, Asheville, North Carolina.
7. A Plea for the Earlier Recognition of Pulmonary Consumption—Dr. Louis F. High, Danville, Virginia.
8. Food and Its Auxiliaries—Dr. F. W. P. Butler, Edgefield, South Carolina.
9. The Treatment of Urethral Discharges—Dr. James M. Parrott, Kinston, North Carolina.
10. Remarks on the Relation of Diet to Hay Fever and Asthma—Dr. John Dunn, Richmond, Virginia.
11. Typhoid Fever; Diagnosis and Treatment—Dr. Rolfe E. Hughes, Laurens, South Carolina.
12. Reports of Cases, etc.—(Followed by general discussion).
13. Appendicitis Complicated with Intestinal Perforation—Dr. George W. Long, Graham, North Carolina.
14. Diagnosis and Treatment of Tubercular Peritonitis—Dr. W. L. Robinson, Danville, Virginia.
15. Report of Cases of Rupture of Uterus during Pregnancy—Dr. Francis D. Kendall, Columbia, South Carolina.
16. Dystocia—Dr. David A. Stanton, High Point, North Carolina.
17. Vomiting in Pregnancy—Dr. R. S. Martin, Stuart, Virginia.
18. The Treatment of Retained Placenta in Abortion—Dr. J. C. Harris, Anderson, South Carolina.
19. Application of Electricity to Diseases of Women—Dr. W. T. Woodley, Charlotte, North Carolina.
20. Material Aids in the Management of the First and Second Stages of Labor—Dr. James Albert Anderson, Danville, Virginia.
21. Tubal Pregnancy—Dr. Virginius Harrison, Richmond, Virginia.
22. Abdominal Palpation Versus Vaginal Examination in Obstetrical Practice—Dr. John F. Winn, Richmond, Virginia.
23. Ovaritis; Acute and Chronic—Dr. L. G. Frazier, Youngsville, North Carolina.
24. Diagnosis and Treatment of Cancer of the Breast—Dr. Hunter McGuire, Richmond, Virginia.
25. The Importance of Early Operation in Appendicitis—Dr. John Whitehead, Salisbury, North Carolina.
26. Surgical Treatment of Duodenal Ulcer—Dr. Hugh M. Taylor, Richmond, Virginia.
27. Drainage in Abdominal Surgery—Dr. J. W. Long, Salisbury, North Carolina.

28. Sciatica and Its Treatment—Dr. Samuel A. Lile, Lynchburg, Virginia.
 29. Report of Two Cases of Nephrectomy—Dr. George Ben. Johnston, Richmond, Virginia.
 30. The Report of a Case of Complete and of Partial Ophthalmoplegia of the Right Eye—Dr. Charles W. Kollock, Charleston, South Carolina.
 31. The Eye as a Causative Factor in Functional Nervous Diseases—Dr. W. H. Wakefield, Charlotte, North Carolina.
 32. The Present Status of Laryngology and Rhinology—Dr. W. Peyre Porcher, Charleston, South Carolina.
 33. Subject not yet received—Dr. J. A. White, Richmond, Virginia.
 34. Brief Report of Cases—Dr. J. Stephen Brown, Salisbury, North Carolina.
 35. Treatment of Fractures—Dr. Hugh T. Nelson, Charlottesville, Virginia.
 36. Subject not yet received—Dr. S. C. Baker, Sumter, South Carolina.
 37. Some Practical Points in the Treatment of Diphtheria—Dr. Ramon D. Garcin, Richmond, Virginia.
 38. What Medicine Owes to Bacteriology—Dr. E. C. Levy, Richmond, Virginia.
 39. The Medical Examining Boards of North Carolina and Virginia; Their Relation to Each Other and the Profession—Dr. A. S. Priddy, Keysville, Virginia.
 40. State Institutions for Epileptics—Dr. William Francis Drewry, Petersburg, Virginia.
 41. Examination of Feces as an Aid to Diagnosis—Dr. H. Stuart MacLean, Richmond, Virginia.
 42. The Influence of Chronic Nasal Occlusion on Cerebration—Dr. Dirk Adrian Kuyk, Richmond, Virginia.
 43. Diagnosis of Renal Calculus—Dr. Moses D. Hoge, Jr., Richmond, Virginia.
 44. The Practical Treatment of Carbolic Acid Poisoning—Dr. Stephen Harnsberger, Catlett, Virginia.
- Unfinished Business.
 Papers previously announced, and still unused.
 Volunteer papers.
 Adjournment.

Book Reviews.

Keen on the Surgery of Typhoid Fever. The Surgical Complications and Sequels of Typhoid Fever. By WM. W. KEEN, M. D., LL. D., Professor of the principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia; Corresponding Member of the Societe de Chirurgie, Paris; Honorary Member of the Société Belge de Chirurgie, etc. Octavo volume of about 400 pages. Cloth, \$3.00 net. Published by W. B Saunders, Philadelphia, Pa.

The name of the author is a sufficient guarantee for the thorough and practical character of this work, while the subjects dealt with lose none of their interest when we remember that of the fatal cases of typhoid fever, something like 75 per cent. are due to the various medical and surgical complications.

Dr. Keen has written the only complete treatise upon the Surgical Complications of Typhoid Fever in any language; his conclusions being based upon an exhaustive analysis of 1700 cases. The chapter on intestinal perforation is alone worthy of the thoughtful consideration of every physician, while the careful and detailed treatment of other and less common sequels and complications make the work one of great value to the specialist as well as the general practitioner. A special feature is a chapter on Ocular Complications, by Dr. Geo. E. de Schweinitz. For the rest, the style is clear and concise and the print most excellent, producing a work, the perusal of which, is highly instructive and agreeable.

Electricity in the Diagnosis and Treatment of Diseases of the Nose, Throat and Ear. By W. SCHEPPEGRELL, A. M., M. D. Ex-Vice-President American Laryng., Rhin. and Otol. Soc.; Vice-President New Orleans Electric Soc.; Co-Editor Annals of Otol., Rhin. and Laryng. With 161 illustrations, 8vo., pp. xiv plus 398, \$4.50

This, the first systematic treatise on the application of electricity in the diagnosis and treatment of diseases of the nose, throat and ear is a profusely illustrated volume from the press of G. P. Putnam's Sons. Like all other publications of this house, the book itself is to be admired on account of its clear type, delightful paper and clean print. The work is divided into four parts; the first part discusses the physics of electricity from a medical standpoint; the second treats of methods of examination; the third is devoted to various methods of applying electricity, such as cautery, electrolysis, etc.; the fourth takes up the various diseased conditions of nose, throat and ear in which electricity is indicated as a remedial agent, and shows how to apply it.

The profession owes a debt of gratitude to the talented and pains-taking author for this volume, and he is to be congratulated on the result of his labors. Dr. Scheppegrill has long been known as an industrious worker in this therapeutic field and his conservatism and fairness is

shown in his writings. He does not allege for electricity more than justly belongs to it and is frank to admit that it is useless in certain conditions. The work show the hand of a master and commends itself to the general practitioner or surgeon who uses electricity as well as to the specialist.

A Text-Book of Pathology. By ALFRED STENGEL, M. D., Instructor in Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital; Clinical Professor of Medicine in the Woman's Medical College of Pennsylvania; Physician to the Children's Hospital; late Pathologist to the German Hospital, Philadelphia. Handsome octavo volume of 848 pages. Nearly 400 illustrations, a number of them in colors. Cloth, \$4.00 net. Half Morocco, \$5.00 net. Published by W. B. Saunders, 925 Walnut Street, Philadelphia.

This work is largely the outgrowth of the author's method of teaching and demonstrating clinical pathology and is therefore admirably adapted for the use of students and practitioners of medicine. All necessary details of technique are omitted and but small space given to controversial matters and hence it presents in very concise form the essentials, facts of clinical pathology and particularly of pathological physiology, all of which renders it a work of unusual value to the student and general practitioner. This volume is divided into two parts, each of which is profusely illustrated. Part I, is devoted to General Pathology and is in eight chapters. Part II covers the subject of Special Pathology beginning with diseases of the blood and taking up separately all the different organs of the body.

Upon the whole it most thoroughly fulfills the purposes for which it was intended.

The Hygiene of the Voice. With 27 illustrations. By THOMAS F. RUMBOLD, M. D., Member of the St. Louis Medical Society, Permanent Member of the American Medical Association, etc. St. Louis. 1898.

The brochure of 106 pages springs from the author's experience with singers and other professional voice users, and is a good, practical, common-sense presentation of the subject in non-technical terms. Its pages are well illustrated and the various pathological conditions of nose and throat that exercise injurious influences over the voice are clearly pointed out and their remedy suggested. Any good text book on nose and throat contains nearly everything found in this brochure but the compact grouping is convenient and the matter is clearly stated.

Review of Medical and Surgical Progress.

New Treatment of Diabetes Mellitus.—Dr. A. Moyer, of New York, in a paper read before the Metropolitan Medical Society and published in the *Medical Record*, advances a new theory as regards the etiology and treatment of Diabetes Mellitus. After reviewing the older ideas of the cause of Diabetes and recalling the fact that in many cases the most careful examination after death fails to show any demonstrable lesion to which importance can be attached, he holds the view of a special bacterium or its ptomain as being the cause of the disease. In support of this theory he calls attention to the recent claim of Lediew, Naunyn and others, that Diabetes Mellitus is a contagious malady. As a logical sequence, Dr. Moyer has instituted an antiseptic treatment with what he claims most satisfactory results.

To quote from the author :

"My theory supposes the invasion of the organism by these bacteria, or their presence in it. In perfect health they are prevented from exercising their injurious influence by the normal resistance of the economy, or perhaps by some ferment physiologically produced by metabolic changes in certain organs of the body acting as an antitoxin against these bacteria.

"If this presumption be correct, then the ingestion of a suitable bactericide in sufficient quantity to counteract the effect of this bacterium should manifestly show an amelioration of the pathological symptoms of diabetes mellitus.

"After repeated experimentation I am able to report that the bichloride of mercury in suitable doses fulfils this indication.

"My method of treating these cases is as follows : A history of the case is obtained and the patient weighed. The quantity of urine passed in twenty-four hours is collected, measured, the specific gravity taken, quantity of sugar estimated, and other abnormal characteristics are noted. If the urine fails to react to Gerhardt's test, the patient is then put on an antidiabetic diet for two weeks, during which time he takes the bichloride. I begin with a dose of one-twelfth of a grain three times a day, and in two or three days increase it to one-tenth of a grain. In a week's time my patient is taking one-sixth of a grain three times a day, directly after meals, well diluted with water. This is the maximum dose. None of the symptoms of mercury poisoning showed themselves in any of my

cases. A rather brisk catharsis takes place the first few days, especially if the patient previously suffered from constipation; and this diarrhoea I regard as favorable. At the end of two or three weeks my patients have shown a marked reduction of sugar and a decided improvement in their general condition. As soon as I have obtained this result, the dose of mercury is diminished until about one-fourth of a grain in divided doses is taken daily. Or I may still further reduce the dose. (The diet now is not so severely restricted.) A little bread and a tart apple are permitted.

"The urine is examined daily or every other day for the first two or three weeks; that voided in the evening being tested.

As the percentage of sugar diminishes, the dose of bichloride is decreased accordingly and the diet is not so strongly restricted. From time to time the drug is suspended. Even though the sugar has entirely disappeared, I continue to give the bichloride, but in much smaller dose, about one-sixteenth of a grain three times a day.

"Diabetics with syphilitic history are not included in this report. But I wish to mention that diabetic patients with a history of lues showed a more marked and rapid improvement under the mercurial treatment."

Dr. Moyer reports in detail the histories of eleven cases of diabetes treated in the above manner, all of which showed a most marked and prompt improvement.

The Philadelphia Medical Journal gives the following facts and figures regarding the mortality from disease in the two last American wars.—While the statisticians are trying to settle the question, how far our nation has advanced in the art of war in the last 35 years, they may find some suggestive figures in a comparison of the total deaths in battle and in camp respectively during certain parallel periods in the Civil War and the war with Spain. In the latter war we had only one trial at arms which was worthy the name. That was the fighting on the way to Santiago, at El Caney and San Juan, July 1-3, 1898, when, of about 16,000 men engaged at various points, 239 were killed, or nearly 1½ per cent. At the much more sanguinary battle of Gettysburg, fought July 1-3 1863, of some 80,000 men engaged, 2,834 were killed, or more than 3½ per cent. Measured by this standard alone, our progress would appear to have been rapid. On the other hand, the medical records for the five months of the Spanish war, May to September 1898,

have their nearest parallel in the corresponding months of 1861, as the staff in both instances found itself plunged into war with almost no preparation, and compelled to recruit its personnel and provide and distribute its supplies in extraordinary haste. The following table tells its own story:

Months.	Strength of Army, 1861.	Percentage of Deaths from Disease, 1861.	Strength of Army, 1898.	Percentage of Deaths from Disease, 1898.
May	16,161	.00118	151,685	.00046
June.....	66,950	.00148	159,793	.00070
July.....	69,118	.00281	203,250	.00215
August.....	109,054	.00303	190,347	.00408
September.....	162,217	.00270	130,763	.00245
Average	84,700	.00224	167,168	.00197

This shows a reduction in deaths from disease from a trifle above one-fifth of one per cent. to a trifle below one-fifth of one per cent., not a very noteworthy difference. Plainly, in those branches of the art of war which deal with the care of troops in the field we have much more to learn than in the strategical branches. It is a matter of pride with an officer of the line to accomplish his ends without letting his men fall into a hostile ambush. It should be equally the pride of the staff to shield the helpless soldiery in the camps and on the transports from the foes which lurk there unseen and too often unsuspected.

The Difficulty of Removing Foreign Bodies From the Bronchi.—

3.—Failing in an attempt to remove a foreign body from the right bronchus by low tracheotomy, Curtis decided to carry out Bryant's suggestion and perform a posterior thoracotomy. After resecting portions of the fourth, fifth, and sixth ribs, at their vertebral end, the pleura was detached from the contents of the posterior mediastinum and posterior chest-wall. By this means the bronchus was easily approached, but, owing to the exaggerated respiratory movements of the lung, subsequent to the detachment of the pleura, it was found difficult to attack the bronchus, and, as the patient's condition was not encouraging, the wound was packed and the operation suspended. On the following day under anesthesia the bronchus was opened, but the foreign body could not be detected with the forceps. An attempt was made, after locating it with the fingers, to remove it by cutting directly through the lung-tissue with a cautery-knife. Even with this incision the foreign body, which was a

seed vessel of some plant, transfixing with a pin, could not be grasped with the forceps. A draining tube was inserted and the operation discontinued. The patient succumbed to pneumonia 48 hours later. As to the technic it is best to fashion the flap with its base toward the scapula, contrary to Bryant's own method, as the attachment of its base to the scapula allows of the flap moving with this bone and thus ensuring more room. Removal of the body through an incision in the lung-tissue, after the pleura is sutured to its surface is preferable to too prolonged attempts to pass instruments through the bronchi. The wound should always be drained and sufficient gauze should be packed around the tube to protect the wound from infection.—*Annals of Surgery*.

The power of resisting shock and infection varies widely, as is well known, among different races and among different people of the same race. The Irish are thought by some to be abnormally susceptible to shock, infection or injury, whilst Oriental races are almost absolutely impassive under like conditions. An instance of unusual vitality is reported by Bidie, of the Indian Medical Service, in the *Indian Lancet* of November 1st: A native boy, aged 15, was gored by a bull in the abdomen, making a wound through which the intestines protruded and tearing the gut in several places. The coils of intestine were smeared by the natives *with cow-dung*, covered with a piece of cocoanut and some leaves, and the boy was carried 5 miles in a country cart over rough roads, reaching the hospital about 6 hours after the time of injury. The parts were cleansed, the intestines sutured, the abdomen was closed and the wound dressed antiseptically. Shock was entirely absent, and the patient made an uneventful recovery, with rise of temperature only on three occasions after the operation.

Unfortunately for both patient and surgeon, constitutions of such staying power are unusual, but this makes all the more imperative the cultivation of such surgical judgment as will enable one to predict with a fair amount of accuracy a patient's capacity to withstand surgical shock before undertaking operations of expediency. There is some justification for the much-abused saying that such a doctor "knows the constitution of the family;" long acquaintance does not help us to understand the personal equation. It is probable that more earnest, conscientious effort on the part of the surgeon, exercised every day in every case, to try to estimate the physical peculiarities of patients, would succeed in training the faculties so

that the limits of intervention might, in certain cases, be extended, and in other cases sad accidents might be avoided.—*Philadelphia Medical Journal*.

Dangers to Life in Typhoid Fever.—In discussing the treatment of typhoid Philips (British Medical Journal) calls attention to some of the more common dangers to life :

(1) Death from general causes, toxemia, hyperpyrexia, pyrexia, heart-failure and asthenia ; (2) death from local lesions special to typhoid fever, perforation, hemorrhage, etc. ; (3) death from inter-current affections. Toxemia is probably the most common cause of death, and in order to lessen its dangers the antiseptic method of treatment, having as its object the destruction of the toxins before their absorption, has been adopted. The most useful antiseptic is mercuric chlorid. Salol is also useful and benefit is derived from a daily enema of some disinfectant solution, especially when constipation exists. Hyperpyrexia is nearly always due to some local affection and treatment must be directed to the local condition, the temperature in the meanwhile being lowered by sponging, quinin, etc. Pyrexia is best treated by the cold bath. When the bath cannot be used, sponging with tepid or cold water, effusions, or wet packs, are better than drugs. Quinin is the only drug that should be given. Cardiac failure, which is usually due to changes in the myocardium resulting from pyrexia and toxins, is indicated during life by feebleness of the heart-impulse and cardiac sounds and the condition of the pulse. In another class of cases in which death is due to failure of the circulation there is a natural want of blood in the body, arising from failure in the blood-making function. In these cases death occurs from mere bloodlessness. The proof that the symptoms of typhoid are sometimes due to want of blood are : (1) If the artery of a patient dead of typhoid fever, after these symptoms, be opened, it will be found singularly empty of blood ; (2) there is an enormous decrease in the number of red corpuscles and in hemoglobin throughout the course of the disease. There is also a great decrease in leukocytes and in the fibrin of the blood. The sudden rises in the number of corpuscles sometimes observed in typhoid fever are attributed to losses of fluid by sweats and diarrhea ; (3) the symptoms of rapid pulse, increasing listlessness and debility, with fever and a perfectly clear mental condition, are those that follow want of blood. The pyrexia and toxins in the blood, the cloudy swelling of the internal organs, the special affection of the

blood-making organ, the spleen, and the frequent drain of material from diarrhea, hemorrhage or profuse sweats are all causes that can act in the production of blood-deterioration. There occurs also in typhoid fever a tendency for the venous side of the circulation to be full of blood, while the arteries are unduly empty. In the matter of treatment of the circulation, the one essential is to prevent waste of material through diarrhea, hemorrhage, or profuse sweats, and to supply as much nourishment as can be digested and absorbed. Milk should be the staple diet. In cases in which vomiting or diarrhea exists, beef-tea or meat extracts may be substituted. Stimulants are not necessary as a routine treatment. Opium is admissible, to secure sleep. In cardiac weakness digitalis, strychnin, and caffein can be used carefully. Ether, ammonia, sumbul and diffusible stimulants are often useful. In order to keep up the volume and composition of the blood, sweats should be checked by belladonna and diarrhea by enemas. Cold water may be given freely. Oxygen-inhalations are sometimes useful and solid food should be given after 3 days without fever at any time within the 24 hours. Saline injections are useful when there are elements of profound bloodlessness and weakness, preferably injected into the basilic vein by means of a simple cannular drainage-tube and funnel. Two pints at a temperature of from 100° to 115° may be introduced. Operation is indicated in all cases in which perforation can be diagnosticated. Hemorrhage is a bad omen and in its treatment opium may be given freely. Turpentine is useful, but 5 minim doses of the tincture of hamamelis are most to be relied upon. An ice-bag to the abdomen is useful. In the treatment of diarrhea enemas of starch, with or without opium, are more useful than drugs given by the mouth. Bismuth salicilate in 30-grain doses 3 or 4 times a day should be given, however. Constipation should be treated by enemas. When tympanites is present and the abdomen is soft and doughy, as well as swelled, diffusible stimulants are useful; when the abdomen is tense, hot fomentations and the passage of a long tube into the rectum, with the administration of food in small quantities, usually bring relief.—*Philadelphia Medical Journal*.

Septicemia Treated by Venesection and Infusion of Salt-Solution.—Young (*Maryland Medical Journal*, November 19, 1898) reports the case of a boy, aged 15, who had had recurrent attacks of appendicitis since early childhood, but who had previously recov-

ered under use of cathartics or other simple measures. Dr. Halsted was called to see the patient after an attack of 5 days' duration. The abdomen was distended; there was tenderness over the sigmoid flexure and hypogastrium; no tenderness of the iliac fossa, but a boggy mass was felt in the pelvis. A diagnosis of probably appendiceal abscess was made and celiotomy performed. Turbid fluid was found in the abdominal cavity, the intestines were adherent, and after breaking them up a large abscess was found, in which lay a necrotic perforated appendix. The pus was evacuated, the appendix removed, and gauze-packing inserted. After the operation the temperature gradually rose, and the pulse became more rapid. The next morning the temperature had reached 105.8° F., the pulse was 156, and it was evident that the condition was one of septicemia. Under cocain-anesthesia the right basilic vein was opened, about 2 ½ ounces of blood removed, and 1 ½ quarts of normal salt-solution transfused. The temperature immediately fell, and the general condition became much better. The improvement did not remain permanent, however, and 24 hours later another transfusion of 2 ½ quarts was made. The temperature and pulse both dropped almost to normal, and after that there was never any great concern about the boy's condition. The subsequent convalescence was tedious but uneventful.

Hemophilia—Dodd relates a case of hemophilia occurring in a boy aged 13 years, with six brothers and 7 sisters. The brothers had all bled to death. The girls were alive and well; two were married and had borne children. A maternal uncle had died from hemorrhage from the stomach and a maternal aunt had died at the age of 14 from bleeding. The patient gave a history of many swellings in his joints following slight injuries. He had bled from the gums and nose and the roof of the mouth. Slight injury to the right thigh had resulted in a large fluctuating swelling that was tender to touch, while the overlying skin was red and thin. The patient was markedly anemic. An incision was made through the skin, and a quantity of clot and some purulent fluid escaped. In spite of packing and pressure and internal administration of styptics the bleeding continued and the boy grew rapidly weaker. Bleeding from the nose and gums took place also. The stomach rejected everything. Death seemed inevitable. At this juncture inhalations of oxygen in large doses were resorted to. Within 24 hours the vomiting and bleeding stopped and the boy

began to take milk freely. Recovery was eventually complete.
—*The Philadelphia Medical Journal*.

In the Annals of Surgery (Nov. 1898) Operation for Radical Cure of Hernia.—Bull and Coley report the results of observations in 400 cases of hernia operated upon since 1895, at the hospital for the Ruptured and Crippled. The profusion of material that presents itself at this institution is such as to afford opportunities of observing and treating hernias of all varieties and at all stages; from September, 1890, to September, 1897, 34,271 cases of hernia were treated. The results obtained in the series of 400 cases may be summed up as follows: As to the duration of cure 236 were well beyond one year, and 142 beyond two years; the mortality was less than 1 per cent. Primary union occurred in 373 cases; relapses in 6 cases. The Bassini method was employed in 342 cases, the remainder being treated by various other methods. The two most serious complications were pneumonia and wound-infection, and as for the latter, the experience of Bull and Coley seems to coincide with that of Mikulicz, who proved that the danger of infecting the wound increased with length of the operation; that while the hands may be sterile at the beginning they seldom remain so until the end of a prolonged operation. The results speak unqualifiedly in favor of an absorbable material for the buried sutures, for which purpose chromicized kangaroo-tendon is to be preferred. In those cases in which non-absorbable material was used sinuses almost invariably developed. A careful analysis of 360 cases of relapse shows that in those cases that have remained well beyond one year, the chances of relapse are much diminished. Thus in 64.5 per cent. relapse occurred during the first six months; in 80 per cent. during the first year, and in only 20 per cent. after the first year. Therefore, if a rupture is sound at the end of one year after operation, there is a reasonable prospect of permanent cure, while if it remains well for two years, the chances of relapse are exceedingly small. As to the choice of methods the evidence is strongly in favor of the Bassini method, which has many advantages over the so-called Halsted method: The technic is less complicated, and the operation requires less time, while the published results of Halsted are inferior to those of Bassini. Stress is laid upon the importance of performing the operation as rapidly as possible, thus permitting of the least amount of bruising of the tissues, and thereby increas-

ing the chances of primary union. Since 1888 Bull and Coley have performed 618 Bassini operations, with only 12 relapses.

Cocaine Anesthesia.—In *The Medical News* of recent date, Dr. John A. Wyeth accounts for frequent unsatisfactory results obtained in the use of cocaine as an anæsthetic, and describes a method of using it which seems to meet the requirements. He invariably uses a 4 per cent. solution of cocaine, made in a saturated solution of boracic acid, for cutting through the skin. He introduces this in very minute quantities—a minim at a time—immediately under the epidermis into the sensitive or malpighian layer of the skin. This whitens the area with which it comes in contact, and provided it be in a part where the circulation is not readily controlled, he at once makes an incision with a sharp pointed knife as far as the anæsthesia has spread. The needle is then inserted one-quarter of an inch from this point, and another minim of the solution injected at the same level. Proceeding thus, an incision of the requisite length can be made through the skin and coreum into the subcutaneous areolar tissue. On account of the lack of sensation in the subcutaneous areolar tissues, a weaker solution may now be used, and poisoning thereby be avoided, as absorption takes place freely in this tissue. The following are the Schleich solutions which the author recommends:

No. 1, Strong.

- R Cocaine muriate, gr. iiij.
- Morph. muriate, gr. ii-v.
- Soda chlorid., gr. iiij.
- Aq. sterilized dest., or saturated solution of boracic acid, q. s. $\frac{3}{4}$ 3 2-5.

No. 2, Normal.

- R Cocaine muriate, gr. iss.
- Morph. muriate, gr. 2-5.
- Soda chloride, gr. iiij
- Aq. sterilized dest., or saturated solution of boracic acid, q. s. to fl. $\frac{3}{4}$ ij.

No. 3, Weak.

- R Cocaine muriate, gr. 1-6.
 - Morph. muriate, gr. 2-6.
 - Soda chlorid., gr. iiij.
 - Aq. sterilized dest., or saturated solution of boracic acid, q. s. fl. $\frac{3}{4}$ 3 2-5.
- Medical Review of Reviews.*

The Action of Drugs in Children.—Dr. J. B. McGee says that while as few drugs as possible should be given to children, when indicated they should be used freely. We should know what

a drug cannot do as well as what it can do. In most children the tendency toward recovery in slight ailments is very strong. Medication should be simple. Medicine eliminated rapidly should be frequently repeated; such as alcohol, nitroglycerin, the ammoniacal salts, aconite, and belladonna. Digitalis is cumulative and should be given at wide intervals. Pills and powders are not easily taken by young children. Active principles and remedies in small bulk are to be preferred. Salol and sulphonal in pill or tablet may pass through the intestinal canal intact. Glycerin is a better vehicle than syrup, especially in summer. With the exception of opium and its alkaloids, larger doses may be given than are usually stated. The salts of sodium are to be preferred to those of potassium. Care is necessary in giving opium, with the exception of paregoric, ten drop of which for each year is a safe dose. Dover's powder should not be given to children. Chloral is a good sleep producer. The bromides are very slowly eliminated. Sulphonal and trional are safe hypnotics for children. Belladonna is exceptionally well tolerated in children, and may be given in two-drop doses for each year, even sixty drops a day have been given to child two or three years old. Alcohol is one of the best heart stimulants and seldom disagrees with children. Strophanthus is to be preferred to digitalis. Caffeine and cocaine are not well borne, but strychnine is. Children stand the preparations of mercury and arsenic well. Cold is a good antipyretic, but phenacetin and acetanilid may be used, and also quinine in malaria.—*Medical Standard*, October, 1898.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

When are Cold or Hot Applications Indicated in Eye Diseases?

ANNALS OF OPHTH.

Cold applications are indicated in the course of acute, catarrhal conjunctivitis, in the inflammatory stage of trachoma, in purulent ophthalmia and in pain after operations on the conjunctiva.

In interstitial keratitis, acute iritis and irido-cyclitis either cold or warm applications may be made. In exudative iritis it is much better to use hot applications. The pain of glaucoma and suppuration of the eyeball is best treated by heat.

[As a rule I find superficial inflammations best treated by cold, but in the deep seated inflammatory troubles hot applications afford more relief. There are exceptions, of course.—Ed.]

The Open Wound Treatment of Cataract Operation.—Johann Brothen, of Norway, in a paper abstracted by the *Annals Ophth.*, advises that eyes from which cataracts have been removed be not bandaged and reports cases successfully treated in support of his position. The movements of the eyelids do not hinder the healing of the corneal wound and a fixative bandage is harmful.

[Better no bandage than a bad one but I'm not ready to treat cataract cases as above.—Ed.]

Eneucleation Under Schleich's Infiltration Anesthesia.—Dr. L. Weiss, (*Annals of Ophth.*) recommends infiltration for enucleation. He reports five cases in which he removed the eyeball under injection of Schleich's formulas for anesthesia. The operations were free from pain, and cutting the optic nerve did not give rise to the sensation of light. Infiltration is made by injecting one-half hyperdermic syringe-ful beneath the conjunctiva in several places around the eye and by making deep injections toward the optic nerve. The use of the long curved needles of Schleich is recommended for infiltrating the nerve sheath.

He thinks this form of anesthesia indicated in fresh ocular wounds and intraocular tumors except where the latter extends beyond the globe.

Enlarged Tonsils and Adenoids, is the subject of an able paper by Dr. Wink, of Tacoma, Wash., published in *The Medical Sentinel*.

The author calls attention to the fact that while the signs of the presence of these growths are present in the faces of the little sufferers they are often overlooked by parents and physician. The prominent symptoms are mouth breaking, in some cases constant, in others occasional. Choking and snoring during sleep are always present. The child starts up in its sleep, struggles for breath, sometimes sitting upright in bed in its struggles. The voice has a peculiar tone and there is difficulty in pronouncing words containing the letter M. On examination a diagnosis of enlarged tonsils is easily made, but adenoids are not seen without a head light and rhinoscopic mirror. Earache and deafness are frequent, and it is the deafness that causes many parents to consult the doctor. The only curative treatment is operative, and chloroform anesthesia is advised, with the patient lying on the back, the face turned to the light.

Thorough removal of the tonsils by means of the tonsillotome and of the adenoids by Gottstein's curette are advised. In the experience of the author the results of the operation were always satisfactory, the evidences of benefit being seen at once.

Mouth-Breathing in Children, Particularly as a Result of Adenoids.—*Hobbs, Atlanta Medical and Surgical Journal*—The author advocates a complete extirpation of the adenoids, though not absolutely necessary since the remaining part of the growth atrophies when the larger part has been removed and nasal breathing established.

Constitutional treatment is of service in the majority of cases after the adenoids have been removed.

Nasal Catarrh.—Ed. Punction, *Georgia Journal of Medicine and Surgery*.—The author arrives at the following conclusions:

1. That impairment of ventilation and drainage of the nasal fossæ are the most important elements in the treatment of this affection.
2. That the touching of opposing surface is one of the most important pathological factors.
3. That the line of treatment is largely surgical and the chief object aimed at is to cause the deflection more to conform as nearly as possible to the shape of the ideal standard.

Antiseptic Treatment of Nasal Catarrh.—R. C. Cothingham, *Alkaloidal Clinic*.—The author takes the position that all cases of

nasal catarrh are due to the pressure in the nose of some vegetable parasite, and that the inflammation of the mucus membram is due to the pressure of the "catarrhal" bacteria.

In the treatment great stress is laid on cleanliness and disinfection. He has devised an improved nasal irrigator by means of which he floods the nose with an alkaloid antiseptic solution.

After cleansing he prescribes an ointment made of white vaseline, Tanic acid, salicylic acid, oils of eucalyptus and gaultheria.

A piece the size of a pea is passed up each nostril on a feather or finger tip. Several cases, including the different varieties of catarrh are cited to illustrate the treatment. Out of 2,000 cases treated a cure is claimed in 98 per cent.

Protargol in Conjunctivitis With Profuse Discharge.—D. A. Davies, of Paris, (*Annals of Ophth.*) considers from a very large experience with protargol, that it is an antiseptic agent which produces quick and prompt healing of inflammations of the conjunctiva. On account of protargol causing absolutely no irritation, it can be used in a 50 per cent. solution without causing disagreeable symptoms. (?) As a rule, the author permits patients to drop a 5 per cent. solution in the eye from 2 to 4 times daily; for local applications by the brush, he uses 20 per cent. to 50 per cent. solution once daily or every other day, according to the grade of inflammation. For the treatment of purulent conjunctivitis he cauterizes the conjunctiva twice daily with the 20 per cent. solution and failing to obtain satisfactory results from this he uses 50 per cent. solution, reducing the strength of the solution and using it less frequently as the case improves.

Inflammation of the lachrymal sack protargol is the best remedy we have, as it speedily reduces the purulent secretion without causing pain, injection may be allowed to pass into the nose without producing unpleasant symptoms.

Therapeutic Hints.

Pernicious Vomiting.—Cocaine hydrochlorate, gr. one-sixth hypodermically once or twice daily, immediately before feeding.—*Pozzi*.

Hay Fever.—A fifteen grain dose of salicylic acid will frequently avert a threatening attack of hay fever.—*Ex.*

Dysmenorrhœa.—A mixture of caffeine, potassium bromide, and tincture of gelesmium, administered for a few days before menstruation, is of much value in the treatment of dysmenorrhœa.—*H. TALLEY*.

Typhoid Fever.—Banana diet is recommended, because it is easily digested, almost wholly absorbed from the stomach, and is very strengthening.—*Usery, of St. Louis*.

Impacted Cerumen.—Peroxide of hydrogen acts rapidly in disintegrating the solid cerumen; in a few minutes after its use the wax can readily be removed from the ear by syringing.—*W. D. TURNER.—Ex.*

Irritation from Non-Advancing Teeth.—Irritation from non-advancing teeth occurs because the normally flinty teeth, to which the soft gums can offer no practical resistance, are suffering from lack of nutrition. While the gum lancet gives temporary relief, yet it transforms normal into cicatricial tissue. In place thereof, the writer, Dr. Wallen, recommends correcting any faulty conditions in the infant's alimentary tract, and placing it upon a mixture of the calcic salts, approximating the proportions as nearly as possible to those found in the teeth. For example:

R Calcium phosphate, parts ij.
Calcium carbonate, parts iij.
Sodium phosphate, part j.

M. Triturate to an impalpable powder. Sig. Three to four grains, or more, with other food, three or four times a day for a week, then once a day, p. r. n. In anemic children a trace of ferric phosphate is added.—*New England Medical Journal*.

Menthol Collodion for Contusions.—The *Jour. de M. de P.* says this is recommended by Professor Name to soothe pain and accelerate recovery. After rigorous antiseptics and cleansing of the contused parts with ether, they are painted once or twice a day with a mixture 24-27 grams of collodion with 6-8 grams of menthol.—*N. Y. Poly.*

Fetid Chronic Laryngitis.—

R Potassii permanganatis, gr. ij.
 Aquæ destillatæ, ℥ ij.

M. S. Use in atomizer several times daily.

—SAJOUS.

Sore Nipples.—

R Ichthyol, ℥ i.
 Lanolin, ℥ i℥.
 Glycerin, ℥ i℥.
 Olive oil, ℥ iiss.

M. S. Apply.

—OEHREN.

Rickets—Rachitis.—

R Syr. ferri iodidi, ℥ j.
 Syr. zingiberis, ℥ j.
 Aq., q. s. ad ℥ iij.

M. Sig. Dose, one dram, t. i. d. for a child of 2 years.

—POWELL.

R Ammonii chloridi, gr. xxiv.
 Syr. ipecac., ℥ iss.
 Syr. tolu., ℥ j.

Liq. potass.-citrat., q. s. ad ℥ iij.

M. Sig. Dose, one dram every two hours for a child of two years.

—POWELL.

R Syr. ferri iodidi, ℥ iss.

Mist. ol. morrhue et lactophos calcis, q. s. ad ℥ iij.

M. Sig. Dose, one-half to one dram, t. i. d.

—POWELL.

Diarrhœa.—

R Tr. opium, ℥ ss.
 Tr. rhubarb, ℥ ss.
 Comp. tr. catechu, ℥ i.
 Ol. Sassafras, ℥ xx.
 Comp. tr. lavender, q. s. ad ℥ iv.

M. S. One teaspoonful every four hours for adults.

—LOOMIS.

Phlegmasia Dolens.—

R Lard (purified), grm. 30.

Ext. opium,

Ext. belladonna,

Ext. hyoscyamus,

Ext. hemlock, aa ℥ i.

M. Ft. unguentum. Sig. Apply over inflamed veins daily.

Chilblain Remedy.—

R Chloroformi, ℥ ss.
 Lin. belladonnæ, ℥ j.
 Tinct. benzoin comp., ℥ ss.
 Lin. saponis, ℥ vj.

M. Sig. This should not be applied by rubbing. Instead use bits of lint saturated with the mixture, and allow them to remain on the affected parts about ten minutes.

Phthisis Cough Mixture, (Charity Hospital, N. Y.)—

- R Codeinæ, gr. iij-vj.
 Vel. morphinæ sulph., gr. ij-iv.
 Acidi hydrocyanici dil., gtt.xx.
 Chloroformi purificati, *m* xx.
 Syr. tolutani, $\frac{3}{4}$ iv.
 M. Teaspoonful every four hours as necessary. To allay cough in phthisis.
 —*White, Journal Medicine and Surgery.*

Condylomata—Warts and Indolent Ulcers.—

- R Salicylic acid, gr. xxx.
 Acetic acid, $\frac{3}{4}$ j.
 M. Sig. Apply with camel's hair brush.—*Louisville Med. Mon.*
 (Said to be highly efficient for venereal warts.—Ed.)

Bleeding Hemorrhoids.—The following is an excellent suppository for bleeding hemorrhoids:

- R Ferri subsulph., gr. iij.
 Plumb. acet., gr. j.
 Mass. hydrarg., gr. ss.
 Ol. theobrom., q. s. ut ft. suppos. j.
 Introduce one morning and evening.—*Horwitz Med. World.*

To Check the Secretion of Milk.—The *Revue medicale* quotes the following from the *Gaz. hebdomadaire de med. et de chirurgie*:

- R Sulphate of atropine, gr $\frac{1}{4}$.
 Sulphate of magnesium, gr. 1,350.
 Infusion of gentian, *m* 3,600.
 M. A tablespoonful to be taken every two hours.—*N. Y. Med. Journal.*

Fissure of the Tongue.—

- R Acid carbol, parts 1.5.
 Tinct. iodi, parts 5.0.
 Glycerini, parts 15.0.
 M. D. Sig. For local application with a camel's hair brush.—*Monatsch f. Dermatol*

Corn Cure.—

- R Salicylic acid
 Tinct. Cannabis indica, aa $\frac{3}{4}$ j.
 Flexible collodion, q. s. ad $\frac{3}{4}$ j.
 M. Sig. Apply with a camel's hair brush morning and night, limiting the coating strictly to the corn. The applications are continued for several days and then the parts are soaked in warm water, when the corn may easily be shelled out in part is not entirely.—*Louisville Med. Mon.*

Acute Follicular Tonsillitis.—F. Ingals, (*London Medical Monthly*).

In the treatment of this condition the author recommends the application of a 50 per cent. solution of guaiacol in oil of sweet almonds to the inflamed tonsil. Internally he advises:

- R Pot. bromid, grs. 80.
Soda Salicylate, \mathfrak{z} j.
Tr. opii deod., \mathfrak{z} j.
Cascara Cordial, ad \mathfrak{z} j.

Sig. Teaspoonful every four hours in water.

—LARYNGOSCOPE.

Eczema of External Auditory Canal.—

- R Acid phos. dil., \mathfrak{z} i.
Tr. Ferri Perchloride, \mathfrak{z} $\frac{1}{2}$.
Syr. Limonis, \mathfrak{z} 6 m.
Teaspoonful in water after meals.

- R Acid Carbolic pure, gr. 10.
Ungt. zinc ox. benz., \mathfrak{z} 4 m.

Apply the ointment freely, carefully cleansing the ear of scabs and scales.
Use no fluids.

—LARYNGOSCOPI.

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Original Communications.

A Running Account of My First Three Years' Surgical Work.

By HUBERT A. ROYSTER, A. B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, St. Agnes Hospital;
Formerly House Surgeon, Mercy Hospital, Pittsburg, Pa.

IN this report I have neither an extraordinary number of cases nor an array of surprisingly favorable statistics to present. My purpose is to put on record all the important surgical operations performed during the first three years of my practice, from August 1st, 1895, to August 1st, 1898, with a view of indicating the nature of the work which has fallen to my lot and with the hope that a resumé of the operations may not prove unprofitable. As far as possible, the cases have been arranged according to the regions of the body affected. Cases of a minor nature will be referred to collectively, while those of greater consequence will each be briefly described. Forty-five cases form the basis of this record. Amputations of fingers or toes, opening abscesses of different kinds, stitching small incised wounds and other lesser operations have not been included here, though many of these have been done. The number of fatal cases was two. With a few exceptions all were done either at the Rex Hospital or at St. Agnes Hospital, the latter being for the colored race alone. Adequate rooms and equipment for modern surgery are provided at both institutions.

Preparation of Patients.—When feasible, great care was always given to the preparation of patients before operation. Even in the minor cases it was deemed essential to perfect results. For these, a laxative, a guarded diet and rigid attention to the field of

operation sufficed. The skin over the part to be operated on was shaved, scrubbed gently with soap and water, then with alcohol and then with bi-chloride-of-mercury solution, and a dressing saturated with the latter was applied and retained by a sterile towel or bandage. This process was repeated at the time of operating, using sterile water as the last solution. In the major cases, and especially in those requiring abdominal section, the preparation was more thorough. The emunctories were depleted still more by purging and by bathing; the diet was restricted, and reduced to liquids for 24 hours preceding the operation; and the patient's skin received the closest attention. Conscientious preliminary treatment, even in trivial cases is one of the most important means to success in surgery. To my mind, one of the essential points in preparing patients for capital operations, to be done away from home, is a sojourn in the hospital at least a week before the expected time, in order that they may become completely accustomed to their new surroundings and to the different mode of life. This is particularly desirable in patients of the poorer classes, who would feel the change most keenly, and is an immense advantage to women of any station about to undergo abdominal operations. It will not be necessary to go further into detail regarding the preparation of patients, since the general plan has been outlined. In some cases the method was modified to suit special needs, as will be noted in speaking of them.

Preparation of Hands, Instruments, Dressings, etc.—As routine practice the hands of operator and assistants were scrubbed thoroughly and persistently for ten minutes with soap and hot water, using a large stiff brush, then rubbed and immersed in alcohol for two or three minutes, then in mercuric bi-chloride (1-2,000) for the same time, and, finally, rinsed in sterilized water. When the abdominal cavity was to be invaded, the permanganate of potash and oxalic acid solutions were usually employed as an additional safeguard, this being probably the safest method of hand disinfection known at the present time. From laboratory researches we learn that it is impossible to sterilize the hands perfectly, but the surgeon must make the attempt and thereby cultivate an "aseptic conscience"—the mood requisite for ideal technique. The instruments and dressings were prepared in the customary way by boiling and steam sterilization, respectively. While in use during an operation the instruments were kept in dry, sterilized trays, or, better, resting on sterilized towels laid over a table. Pieces of sterile gauze in different sizes were used for sponging and discarded after being soiled.

Anesthesia.—The anesthetic of choice was ether. Chloroform was administered in the few instances where ether was contra-indicated. In the hands of a competent anesthetizer it is rare to have troublesome symptoms from ether and it is certainly less dangerous than chloroform. Except in two or three of the cases the anesthetic was administered by the same assistant, an expert and reliable anesthetizer. Some practical experiments were made with the essence of pepsin as a preventive of nausea and vomiting after anesthesia. A tablespoonful was given in a number of cases about an hour before the time for anesthetizing, and my assistants have reported many evidences of its strikingly good effects in diminishing these unpleasant symptoms.

After-treatment.—The character of the operations was so varied that it is scarcely in order here to define their after-treatment as a whole. Suffice it to say that the writer lays on this no less emphasis than on the preparatory treatment. In this part of the operative work, that surgeon will be most successful who possesses in the highest degree the qualifications of a good physician. Or, as forcibly expressed by Professor Ashhurst, "the importance, and even necessity, of a thorough knowledge of practical anatomy can, indeed, scarcely be overrated; yet it is more essential for the surgeon to be well versed in pathology and therapeutics (or, in other words, to be an accomplished physician) than it is for him to know the attachments of every muscle in the body, or all the possible variations of arterial distribution." Following abdominal sections it is my rule that the bowels should be moved early, even in the favorable cases. Intestinal distention becomes a predisposing factor in the production of sepsis and the sooner the alimentary tract is emptied and drained the better. Intelligent personal attention to patients who have just undergone operations will save many that might be lost by carelessness.

OPERATIONS.

I. *On the Head, Face and Neck.*—Probably the most interesting operation on this region was (1) a *partial excision of the superior maxilla*. The patient (referred to me by Dr. N. G. Carroll, Dentist) was a colored girl, L. T., 17 years, who presented a hard tumor, the size of a walnut, projecting from the alveolar margin of the left upper jaw. The lip was protruded in front of it, the adjacent nostril was somewhat obstructed and the left eye was encroached upon. By lifting the lip and dissecting it from the bone for a considerable

distance upward, the tumor was seen to spring from the interior of the autrum of Highmore, filling it almost completely. All the teeth of the left upper jaw were removed, the anterior wall of the autrum was broken through, and the mass shelled out with some difficulty; after which the cavity was curetted and cleaned in order to remove portions of the tumor which adhered to the walls. Packed tightly with gauze. Bleeding very free and troublesome both during the operation and for several hours afterward, chiefly from a portion of the gum posteriorly. Pressure and styptics finally controlled it. Microscopical sections of the growth showed it to be made up of fibrous tissue. The patient made a good recovery, and, with a well-fitting plate, will have a useful jaw.

(2.) S. S., male, age 62—*superficial epithelioma* in left temporal region, 4 inches long and 2 inches wide, and involving the upper eye-lid. Removed by a free incision and raw surface curetted. Healed by granulation; dusted freely with acetanilid at each dressing. Some contraction of left eye-lid. No sign of recurrence so far—12 months.

Two cases of *facial injury* were treated. The first was that of (3) a woman from the "Bowery" district, who was struck by a brick on Christmas morning, 1895. The missile took effect at the junction of the nasal bones with the nasal process of the frontal, splintering these into many pieces. The wound was deep, extending into the frontal sinuses and orbits, while the surrounding soft parts were extensively lacerated and contused. Under chloroform anesthesia, the parts were irrigated with boric acid solution, all the debris washed out and the lacerated edges sutured, as well as could be done, leaving an opening in the centre through which gauze was packed into the wound. Recovery uneventful with only slight disfigurement. The other case of injury was that of (4) a 16-year old boy, whose face was badly lacerated by the explosion of a toy cannon. His upper lip received a long, ragged wound through its whole thickness. His lower lip was mangled and all the front teeth were either gone or hanging loosely from their sockets. After chloroforming the patient and removing the loose teeth and pieces of jaw-bone, the edges of the wounds were united with silk-worm gut sutures, being careful to preserve the mucous membrane of the mouth wherever possible. The under lip required some painstaking plastic work. The boy's lips are now well-nigh perfect; but he lost his left eye from corneal sloughing, due to the injury from powder driven into it.

The last case in this region was (5) a young girl, who had a *sarcoma* of the deep glands on the right side of the neck. An exploratory incision was made and the growth found to be inoperable. The tumor was absolutely fixed; the cervical plexus passed directly through it; it involved the great vessels of the neck; it dipped beneath the muscles, was adherent to the vertebræ and invaded the chest. The wound was closed and united by first intention. The unfortunate girl has not been heard from since her discharge from the hospital.

[TO BE CONTINUED.]

Drainage in Abdominal Surgery.

By DR. J. W. LONG, Salisbury, N. C.

THE question of drainage in abdominal operations dates back to the time when man first dared to invade the peritoneal cavity, possibly before, and will always be of vital interest to the surgeon as long as abdominal sections are done.

The trend of modern surgery is towards simplicity—thorough, complete work stripped of all superfluities. We have arrived at that stage in abdominal work where we can afford to have an opinion as to what is best to be done and to practice well-defined procedures in dealing with the difficult problems that confront us. As every operator is in one sense a law unto himself, he should determine what methods will yield the best results in his hands. This can be done only by extensive reading and sifting the literature of the subject, personal observation of the work of other men, and one's own experience. Some operators drain every case, others of equal note drain only a small per cent. Why is this? Is drainage necessary, or is it a habit? If it is necessary, why does the surgeon who does not drain get good results? If it is unnecessary, why does the surgeon who drains every case practice a method which is useless?

I speak to men renowned in abdominal surgery: I ask you the question "Why you drain?"

In thinking over this matter I can conceive of but two reasons for draining: either,

(1) There is something in the abdomen that needs to be drained away, or

(2) During the operation *we put something* there that should be allowed to escape.

In other words, we are dealing with an infectious case, or we infect the case by our manipulations.

The first-class is strongly represented by a case of general septic, suppurating peritonitis. Here the primal object is to drain, and thereby remove the infectious material that is rapidly killing our patient. Therefore we make long incisions, break up all pus pockets, wash freely with gallons of salt solutions, and drain from every available point.

The other class may be illustrated by a case of simple removal of the tubes and ovaries. Here, there is no infectious matter, but the operator is not quite sure of his technique and he inserts a glass tube or a piece of gauze. Had his aseptic precautions been perfect, there would have been no need of drainage. Between these two extremes there are many gradations. I state candidly that the question of drainage in abdominal cases has always given me much concern.

Think for a moment! Take a healthy stalwart man, open his abdomen and insert a glass tube or a roll of gauze down between the intestines to the bottom of his pelvis! How tolerant the peritoneum must be to withstand such intrusion!

True, the conditions sometimes present justify resorting to these harsh measures, but how often have we used them when in the light of later experience they might have been omitted.

The peritoneum is really a great lymphatic gland. It literally drinks up any fluid that is poured into it. The modern surgeon does not hesitate to fill the cavity with salt solution and close without drainage, knowing that in a short while it will all be absorbed into the circulation and really benefit the patient. Serum and blood, in fact any innocuous fluid may be disposed of the same way. Even septic fluids are absorbed with great rapidity which accounts for the oftentimes *early* overwhelming of the general system in septic peritonitis.

Again, it is readily admitted that all forms of drainage carry with them certain dangers and inconveniences. Drains of any kind keep the abdominal door open, as it were, and thereby lay the patient liable to subsequent infection after even the cleanest operation. Glass drains are liable to break. Gauze drains are hard to remove. Nature endeavors to protect the peritoneum from the presence of

the drains by rapidly throwing out adhesions; and these in turn become a hindrance to normal function and even a menace to life by their restrictive and obstructive effects. Later, the site of the drain may be the starting point of hernia.

But to do away with drainage, we must do clean surgery. Indeed, the ulterior object of this paper is to enter another plea for clean surgery. There must be no make-belief, nothing slipshod. There must be no parade of antiseptic methods with glaring inconsistencies in the minor details. To omit the drain and do sloven work, is to sometimes lose your patient. The more perfect a surgeon's technique the less he drains. Some men may retain the drain from force of habit, but a survey of the work of a considerable number of surgeons will convince us that surgeons are draining their abdominal cases very much less frequently than formerly. I feel sure there are those present who will sustain this statement from their own experience. Kelly says that formerly he drained in eighty-five per cent. of his cases, now in only ten or fifteen per cent. The limitations of this occasion would hardly permit me to go into details sufficiently to point out the indications for or against drainage in each and every class of cases that come under our care, but it may be broadly stated that *septic cases should be drained while clean cases should not be drained*. From the very beginning of my abdominal work I was always glad when I could close the abdomen without drainage, and I find that the more I operate the less I drain. So decided have my convictions become upon this subject that in certain cases which formerly I would have drained, now I do not think of draining.

In fact the tendency is to go still further and omit drainage in many cases accompanied by more or less infection. I will cite a case to show what may sometimes be done with a septic case.

Mrs. O., referred by Drs. Turner and Doughton, of Wilkesboro. Age, 52. Married, mother of several children, has noticed an abdominal enlargement for nearly a year, during that time the periods have been irregular and sometimes profuse, she also has a left inguinal hernia; since the middle of June, she has been confined to her bed, and takes morphine daily for the pains. I saw this patient at her home on August 18th. The abdomen was enormously distended, exquisitely tender, symmetrical in outline. Fluctuation could be made out, and by deep pressure a mass could be felt. The sensation was that of a tumor surrounded by fluid. I

declined to operate at the patient's home and advised that she be brought to the hospital, which was done September 13th. She was unable to sit up, and was brought on a stretcher the distance of 150 miles. An examination after she reached the Sanatorium revealed her condition to be much worse than when seen in August. The abdomen was more distended, large veins coursed over it, the tenderness especially in the left side was extreme, emaciation was marked, the kidneys were secreting only three ounces of urine in twenty-four hours, the pulse weak and frequent, and the temperature ranged from 99° to 102° , while her vision was so impaired she could not distinguish a white person from a black one. I left her for a month before I dared to operate on her. Active stimulation, during this time, improved her considerably. On October 14th, Drs. John Whitehead, McKenzie, Turner and I opened the abdomen and found the largest multilocular cyst of the uterus I have ever seen. Together with the moderate amount of free peritoneal fluid present it weighed not less than fifty pounds. It filled the pelvis, the entire abdomen, displacing the viscera, until actually it extended up into the thorax quite to the nipple line. It was adherent to everything in sight except, strange to say, the ovaries which were free and normal. The enucleation was difficult and tedious, as the tumor had to be stripped by piecemeal from diaphragm, abdominal wall and viscera. The cyst contents were varied and complex. Our head nurse, a woman of experience, trained at the Hopkins, said she never saw such stuff taken out of any person. The evidences of peritonitis and inflammation of contiguous tissues were abundant. Of course the uterus was removed also.

After copious flushing and washing (I use this word advisedly) with hot sterile salt solution the abdomen was closed without drainage. This woman made one of the nicest recoveries I ever saw, her functions all became normal, she gained strength rapidly, and while she did not literally "pick up her bed," she did walk and went home happy.

What could drainage have added to this case? Only discomfort, annoyance, and another source of danger. I could multiply illustrations till I wearied you, therefore I will let this one case suffice, as it tends to establish the truth of what I set out to prove, namely: that, if we do clean surgery there is rarely need for drainage.

Read before the Tri-State Medical Society, Charlotte, N. C., January 18-20, 1899.

Dystocia.

BY D. A. STANTON, M. D., High Point, N. C.

THE only excuse which I can offer for presenting this old subject is its importance, and it needs no far fetched ideas or fine spun theories to cause us to appreciate the significance of difficult labor.

Once in the lying-in room where we know it is impossible for dame nature to take proper care of a faithful wife and the life of an unborn babe we can ever afterwards appreciate the subject of dystocia.

Helping both safely and as comfortably as we can to a successful termination makes a home unmeasureably happy and raises our profession in the eyes of all. To do this we should be thoroughly familiar with all forms of difficult labor, from the simplest uterine inertia requiring only a dose of quinine or a hypodermic injection of strychnine nitrate to the severest case of contracted pelvis necessitating a Cæsarian section of Symphysotomy.

Uterine inertia due to other causes than malformations, is the most frequent met with and is alike trying to physician and patient. If a person who is objectionable to the patient remains in the room pains will often be inhibited, such a person should be put out and we should make ourselves agreeable to the patient and her friends. We have all heard it said "the doctor has frightened the pains away." The severity of the pains caused by the uterine contractions will in some particular cases set up an inhibitory action and thus render the pains ineffectual; in such instances 15 gr doses of bromide of potassim or hydrate of chloral repeated in fifteen or twenty minutes or a hypodermic injection of morphine and atropine will be of much benefit.

This sedative treatment will do good in primipare where the pains become ineffectual from the tiring of the muscles in their first effort to dilate the cervix. After a short period of rest the pains will return with renewed vigor, should they fail to do so in a reasonable length of time, the sedative treatment should be followed with alcohol, quinine or strychnine.

If the os is rigid and unyielding, hot water injections against the cervix will do good, but if the labor is delayed by a deformed pelvis the deformity ought to be recognized, and a history of malpositions and difficult labors in a woman should arouse our suspicion

of a deformed pelvis. It is with shame, that we admit that ignorance or thoughtlessness along this line has cost the life of many a woman and even more children. These deformities are not so infrequent but that every active practitioner will meet with some cases during his professional career. The number of deformed pelvises is variously estimated at from two to eight per cent.; the flat pelvis is perhaps found more often than any other deformity, tho there are a variety of deformities mentioned in works on obstetrics. It follows therefore that an ability to recognize deformities in the female pelvis is a necessary equipment for every practitioner of medicine who may be called upon to attend women in confinement, and a knowledge of pelvimetry is as essential to the intelligent and successful practice of obstetrics as are percussion and auscultation to the practice of medicine.

The following case was given me by a brother physician which goes to prove the force of the above remark:

Dr. A. was called by Dr. B to assist in a shoulder presentation; the condition of the patient was good and the foetal heart sounds could be distinctly heard and was regular, the membranes had ruptured sixteen hours before the consultant arrived; however in their desire to relieve their patient they forgot that the woman had a pelvis and at once did a podalic version, consuming one and a half hours in getting the after coming head through the pelvis.

During this experience they had plenty of time to remember that deformed pelvis exist outside of text books. The child was of course dead, and it was useless to consider Cesarian section. They kept on with forceps to the head and blunt hook in the mouth and finally delivered a dead baby, another victim to the flat pelvis and, I might add, thoughtlessness also, for I am sure a Symphysotomy or a Cesarian section done in time would have saved both mother and child, as it was both were lost.

A pelvimeter should be in our obstetrical bag but where one is not at hand we should, in doubtful cases, measure the conjugate with the index and middle finger of the right hand held stiffly together, pass them up to the promontory of the sacrum, let the thumb slide up to the mons-veneris and make pressure up this way until we plainly feel the impress of the arcuate ligament under the lower edge of the symphysis. With the finger nail of the other hand a mark is made at this point, withdraw the hand and the distance from this point to tip of middle finger will be the diagonal

conjugate, subtract $1\frac{3}{4}$ centimeters and the remainder is the true conjugate. When the true conjugate is not more than $9\frac{1}{2}$ centimeters ($3\frac{1}{2}$) inches there is almost sure to be trouble with a normal size head and forceps or premature labor will have to be resorted to. When the conjugate is as low as 8 c. (3 inches) premature labor is indicated. A conjugate of from $7\frac{1}{2}$ to 7 to 6 c., requires premature labor with Cesarian section four weeks before term.

If the patient is not seen until labor has begun one of the following modes of delivery must be chosen. Wait and see if the head will engage before application of forceps, Version, Symphysiotomy, or Cesarian section. So long as the child is living craniotomy should not be considered. Having measured the pelvis we can more easily decide what to do in the premises. With a conjugate below $6\frac{1}{2}$ c., the woman should go to term and be delivered by Cesarian section.

Labor is obstructed in about 2 per cent. of all cases by some abnormality of the maternal structures of the parturient canal. The septum of a uterus bi-cornus may rupture and give rise to alarming hemorrhage or a decidua membrane may be retained in the non pregnant side and cause septic infection. The cervix may obstruct labor by reason of atresia, cicatricial infiltration, contraction, or rigidity, or there may be transverse or longitudinal septa in the canal. Atresia of the cervix in a pregnant woman must of course be acquired after impregnation; it is however rarely complete. Cicatricial infiltration of the cervix may generally be overcome by hydrostatic dilators. Congenital narrowness of the vagina or vulva is as a rule overcome by the advance of the presenting part tho' often at the expense of vaginal or perineal laceration. Hydrostatic dilators will help wonderfully in such cases but in some instances it may be necessary to resort to incision.

Carcinoma of the cervix will in nearly 50 per cent. of the cases interrupt gestation at various stages, when they do go to term some may be delivered spontaneously tho, this is not the rule. Cesarian section is commonly the proper treatment for these cases and should be selected if there is good reason to doubt the possibility of spontaneous or artificially aided labor.

Fibroids of the uterus and cervix low enough in situation to become incarcerated in the pelvis are likely to cause insuperable obstruction besides favoring abnormal positions of the child's head. If attempts under anesthesia to dislodge the tumor and push it above the pelvic brim fails a Parro Cesarian operation should be performed

even tho' the tumor is not of such size as absolutely to prevent the delivery of the child, because on account of its low vitality the pressure to which it would be subjected by drawing the child past it, it would slough and probably cause a fatal infection. Obstruction in labor on the part of the foetus whether due to over-growth, deformity or malposition should be recognized.

Prolongation of pregnancy is perhaps the most frequent cause of overgrowth; in about 6 per cent. of women pregnancy may be expected to be prolonged beyond the 300th day and every day the foetus remains in the womb beyond the usual time some little increase may be expected; it is a safe rule to allow no woman to exceed the normal duration of pregnancy more than two weeks.

The various double monstrosities, hydrocephalics, prematurely ossified heads, tumors of the foetus etc, cannot be treated by a single rule, but each case requires management peculiar to itself. Shoulder presentations occurring once in 260 confinements has an estimated maternal mortality of 11 per cent. one half of the children perish. I mention the treatment only to insist upon an endeavor being made early before the membranes are ruptured to bring the head or breech through the os and it ought generally to succeed by external manipulations only, failing in this turning by the combined external and internal method should be attempted and the introduction of the entire hand ought to be reserved for these serious cases where the waters have been long drained away when first seen.

With prolapsed cord many children perish, but I have not found it so difficult to replace. In August, 1897, was called to see a negro woman in labor and found the funis prolapsed into the vagina, waters had escaped about fifteen minutes before I arrived, the pains were vigorous and head engaging. Gave chloroform and pushed the cord well up beyond the head, stopped the anesthetic and with my hands made strong pressure over uterus and held the head firmly against the brim of the pelvis until the pains caused the head to engage. Labor then proceeded without further trouble.

Face presentations may give rise to much trouble when the child fails to rotate to the front, though it seldom fails to thus rotate, and requires little more attention than a vertex presentation. But should it fail to rotate assistance may be given with the blade of a forcep or the hand inserted so as to make pressure on the posterior cheek. If this fails both blades of the forceps may be applied to

the head and a considerable amount of force used in trying to rotate head, though this is dangerous to the child. If the child be small and the pelvis large it may be delivered in the mento-posterior position. Finally if all these measures fail there is no resource left except craniotomy.

I have not seen anywhere a neck presentation recorded, however, I have seen one case in consultation. In September, 1896, I was sent for by Dr. Tomlinson to assist him in delivering Mrs. J., at Archdale. On inquiry I learned that she was seven months advanced and had been in labor twelve hours; for six hours there had been no descent of the child. Examination revealed the presenting part tightly wedged into the pelvis; under complete anesthesia it was impossible to force the child back or to pass the hand beyond the presenting part to change its position; palpation showed the child to be lying with its abdomen to the mothers, head flexed back between the shoulders. After considerable effort a cord was passed around the neck and by strong traction enough space was secured to decapitate the head with a blunt pointed pistor. The body was easily delivered as was also the after coming head. In most cases the management of twins does not differ from that of ordinary labor, but the degree to which the uterus is distended may cause some inertia in the first stage of labor and after the first child is born, it will facilitate matters to rupture the membranes and let the waters drain away. If labor pains do not return in fifteen minutes after the first child is born try to induce them by friction over the uterus and a dose of ergot may be given. Occasionally serious difficulty arises from parts of both foetus presenting simultaneously thus impeding the entrance of either child into the pelvis or they may get locked together so as to render delivery impossible without artificial aid. It may be far from easy to discover the cause of the obstruction as a case in my practice verified some years ago, when the heads both presented; when first seen there was no mistake as regarding what was felt on examination. It was the head in the R. O. A. position. I waited six hours expecting the labor to terminate any hour, as there was a good dilatation and pains vigorous. During these hours of anxious waiting there was no descent of the head, dilatation being sufficient I applied the forceps but was astonished at the force necessary to dislodge the head and bring it to the perineum though finally succeeded and delivered twins, both heads presenting. In this instance it was impossible to tell where

or what the obstruction was except a conjecture, believing there was twins in utero. I now believe the second child's head was engaged against the chest of the first.

When both heads present at the brim it will generally be possible to get one out of the way by appropriate manipulation internal and external, and application of forceps to the other, but if both heads are allowed to enter the pelvis the difficulty will be grave.

Read before the Tri-State Med. Society, Charlotte, N. C., Jan. 18-20, 1899.

DISCUSSION.

Dr. J. W. Long.—I don't think there has been a more practical or interesting paper brought before this Society than Dr. Stanton's. It is one of absorbing interest from the fact that it interests us all, for we all see cases of dystocia, unless perhaps it be some of our friends who fit glasses and those who confine themselves to looking through the microscope, but for the bulk of us who see obstetric cases it is a very interesting subject. While Dr. Stanton was reading his paper and when he mentioned the presence of solid tumor in the pelvis, I recalled a case which I had the pleasure of seeing with Dr. Stanton a number of years ago, I think in 1893, in a woman who was about three months pregnant and whose pelvis was completely choked by fibroid tumor. The condition was such that it was clearly impossible for the woman to be delivered so it was thought best to do a Hysterectomy, in other words, to do a Porro operation, which we proceeded to do, Dr. Stanton, and his associate, Dr. Cox, and myself, and we did the Porro operation, removing the tumor, the entire mass. My great object was to relieve this woman from the danger to which she would be subjected in childbirth. We did this operation by cross-section without draining, dropped the pedicel, and so far as I have been able to discover it was the first operation that was done by that method in America, and probably the second in the world for that particular condition and by that method. I recall a case of this kind that came under my observation about a year ago. A lady living in the western part of the State came to me with a tumor of considerable size, and she gave a history of having had great danger in her last three confinements. She was the mother of five children, I believe, possibly six, but in the last three confinements there was excessive labor, increasing difficulty in delivering the child, and she had with her

some most excellent physicians. On examination I found that she was three and a half months pregnant, that the uterus was pushed upwards and a little to the left, lying under the ribs in about the normal position of the spleen. The pelvis and the lower half of the abdomen was filled with a fluctuating tumor. We advised her to have this tumor removed as it was clearly impossible for her to be delivered in the natural way with this tumor present. With the assistance of my associate, Dr. Whitehead, I opened the abdomen about a month after that, when she was four or four and a half months pregnant, and attempted to remove this tumor. I found it was an intra-ligamentous dermoid. The walls of the cyst were so exceedingly fragile that it was impossible under the circumstances to peel out the entire tumor, so I did what I conceived to be the best thing under the circumstances, and that was to make an incision in the posterior vaginal walls and take the tumor in that way. Later she returned to our town and was delivered in my absence by my associate, Dr. Whitehead. Now, this was a case in which the woman's life and the child's life would have been sacrificed if she had come to term unless she had had a Cæsarian section. I have now in my hospital down at Salisbury a lady whom I delivered last August, and whom I saw for the first time when I went to see her during her confinement. At this time I made a vaginal examination and found that she had a tumor, probably not larger than an orange, though I was unable to clearly define the limitation of the mass. When I examined her she was in the first stage and with the presentation high and this tumor was caught down beneath the head, caught between the head and the basin of the pelvis. By pushing this tumor, not larger than a small orange, by pushing it back, and by dint of a great deal of effort on her part and encouragement on my part, we managed by an all night seance to get through, and by my advice she has come to the hospital to have this tumor removed, feeling sure that if this tumor should increase in size, being fixed as it seemed to be in the pelvis, that in case of a subsequent pregnancy, it would be almost impossible to deliver her. So the lesson which I would glean from these cases which I have reported as bearing upon the subject which Dr. Stanton has so ably presented to us, is that in some of these cases of dystocia we must take time by the forelock and remove the difficulty before the woman comes to labor.

Dr. J. C. Walton.—I have enjoyed very much Dr. Stanton's most

valuable paper, and in this connection I want briefly to report a case that I recently saw of prolapsis of the uterus. The uterus was outside, about one-third or one-half of the uterus, the woman had been having hard pains all day, ineffectual pains, and by dilating and the forceps we succeeded after a great deal of difficulty in removing the child. In this case the uterus was filled out, and we had a great deal of trouble on that account, but got her through all right. This was the first case of prolapsis of the uterus I ever had in my experience, and is a rather rare complication.

Dr. Geo. Ben. Johnston.—I have listened with a great deal of interest to Dr. Stanton's paper, and whereas I am not an obstetrician I am in an allied branch and would like to make mention of a case which was very similar to the first case Dr. Long reported. The case was referred to me by Dr. Dayton, of this State, of a woman forty years of age, the mother of seven children, who had gone six years without any pregnancy, and her womb having become pregnant, was examined by the doctor and the tumor of the uterus was discovered, so blocking the entrance to the pelvic cavity that he deemed a natural delivery impossible. He reported the case to me for treatment, and upon examination, and the history of the case, I gave the probable diagnosis of uterine fibroid complicated by pregnancy having advanced to four and a half months. Examination showed a tumor nearly filling the pelvis, so completely including the vagina as to make it impossible to reach the cervix by the examining finger. This tumor was attached to the anterior portion of the uterus about the junction of the cervix with the body. It made an extremely disagreeable and painful pressure upon the bladder. The patient's condition was not favorable, she was wasted and weak, but it was deemed advisable to perform an immediate operation upon her upon the hypothesis that she could not be delivered by the natural medium, that in all likelihood could not go to term to be subjected to a Cæsarian section for the rescue of the child, that abortion would take place which would be so complicated by the tumor, that extirpation was determined upon. The operation was performed without a great deal of difficulty except the danger incident to wound of the bladder and the uterus in the space in which the tumor was located as this one was. When the tumor was removed we discovered that it was the size of a small cocoanut, that the uterus was conical in shape, and when the uterus was opened it was discovered that the walls of the uterus were of

uneven thickness. The walls of the uterus at its right arm were extremely thin—so much that after opening this specimen I was more than ever convinced that the operation was a proper one because I believe that if an attempt at abortion had been made, that the uterine contraction, probably would have ruptured the uterus at this point, which would have complicated an already complicated case, a ruptured uterus in the presence of tumor of this character. The woman made an excellent recovery without any untoward symptoms whatever. My mind was easier made up as to what should be done in this case, having had the advantage of previous conversation with Dr. Long during the time that he operated upon and reported the case to which he alluded, which at that time was unique case and which represented one of the very few cases reported in medical literature.

Dr. J. M. Parrott.—Dr. Stanton's paper was of especial interest to me, and I listened to the discussion by Dr. Johnson and Dr. Long with much pleasure. It was of especial interest to me, because about eighteen months ago I was called in consultation to see a case of labor in which we found the pelvis was much contracted, so much so that I recommended a Cesarian section which was done at once, before the woman was exhausted. We removed the child, removed the placenta, and closed the wound in the uterus, which by the way we made transversely instead of longitudinally, but we closed the wound in the uterus by three layers of sutures. We closed the wound externally. The woman recovered and the child and mother are still living. I made at the time an ovarian section so as to prevent the future pregnancy of the woman. I took that to be the proper thing to do under the circumstances.

Dr. Hugh T. Nelson.—In this connection I would like to report two or three cases that I have never seen any notice of in any of the journals and have never seen any obstetricians who have had the misfortune to have such cases. In two of these cases there was complete rupture of the vagina following shoulder and arm presentation. In the first of these cases there had evidently been an attempt at delivery and the physician who saw the case had thought that there existed a twin pregnancy, and I was sent for to help. I entirely failed in my effort at delivery. The physician who came in said he was pretty confident that he could deliver the woman and advised turning. He did so and was very much surprised to find that the child disappeared entirely from the field of operation,

but the delivery was easily accomplished. The patient was found to be in a moribund condition and died that night. I went up the next day and made a post mortem examination and found that the rupture occurred just at the vaginal junction. In the next case I saw the patient was moribund at the time. The arm was protruding and without any effort on my part at all, simply the slightest pain, the child disappeared well up in the abdominal cavity. The mother was moribund at the time, but I didn't wish her to die, so I extracted the child and made an autopsy as soon as she died, and found exactly the same state of affairs, the difference between the two cases being that the effort of the physicians did the rupturing in one and the other was done by natural effort, because in both cases the child was born before the rupture had taken place.

Dr. Hunter McGuire.—I would like to urge a little conservatism about these things. Of course, every case has to be considered by itself, but briefly I would like to mention two cases that are in my hospital,—no, three cases, one in another hospital. One a woman, four and a half months pregnant, fibroids as soon as conception took place and something was necessary to be done. This woman is from Prince Edward county. I opened the abdomen and took out the tumor and left the uterus. In that case before two weeks had passed abortion occurred and the woman lost her child. The second case I did a similar operation very much like the first, and that woman is still carrying her child and is ready to go home. I mean to say that we ought to have some concern for the baby. We have no right to destroy it if there are other means available. In both these cases the tumors are gone but the wombs are there and in one case the child is still living. I have a woman in the Virginia hospital upon whom I will operate as soon as I get home, who came last year to the same hospital with large fibroid tumor. I found out that one of the young gentlemen had produced abortion on that woman, destroyed the baby and sent her home. She has come back this year in the same condition. I don't think we have got a right to let that man continue this operation, killing baby after baby, therefore, when I get home I am going to open the abdomen and see if I can't remove that tumor and leave that baby, and in all probability stand a very good chance of saving that baby's life.

Dr. Stanton.—I just wish to thank the gentlemen for the discussion. Dr. Nelson's remarks upon the rupture of the vagina recalled to my mind another case of the same character, this case, Dr. Cox, in my absence delivered, and I don't recollect the position of the head, but anyway he had to deliver with forceps, and as soon as he delivered the child he found that the vagina was ruptured.

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Editorial.

RUBONIC PLAGUE.

The recent occurrence of several cases of this dreaded disease among certain physicians and laboratory attendants in Vienna, who were engaged in the cultivation of the specific bacillus for experimental purposes, created something of a panic in that city, and resulted in a governmental investigation.

The Journal of the American Medical Association gives the following interesting account of the unusual manner in which, what was feared for a time might prove a serious epidemic, occurred :

"This work had been going on for over a year with many very interesting results. The two physicians and an attendant were the only persons who came in direct contact with the virus. The attendant fed the animals experimented upon, handled them, and cleaned the floors, and observed all the precautions supposed necessary to prevent accident. He also disposed of the carcasses of the animals. Suddenly he was seized with the plague and died. Two nurses who attended him were taken with the same plague and died also. Dr. Muller, an expert, who had been in India studying

the same epidemic on the spot, and who visited the attendant, was also seized with the same disease and died.

All the three physicians had been engaged in the profuse cultivation of this bacillus in its most virulent form, and in the study of means of prevention, and were experienced bacteriologists. They knew of the danger and had provided against accidents up to this time. It appears from a court examination that the attendant, although a trained man and very careful, was often under the influence of spirits. It is supposed that he must have neglected some sanitary precaution in laying down his pipe in an infected place and using it again, or in failing to wash his hands after handling the animals. The nurses and the doctor were equally incautious and lost their lives through this neglect.

The facts pointed out by the foreign journals commenting on this event are that very few accidents occur in the extensive laboratory examinations now going on in all the large cities. The most virulent poisons and bacilli are cultivated and handled without accidents, showing what intelligent care and exact work can do. Of course this event gives renewed emphasis to the danger from this bacillus, and shows that the plague can be grown and spread in any community by the slightest neglect of sanitary conditions."

The earliest reliable mention in history of this disease was in the 3rd century, B. C., but it is most probable that it has existed in the far East from time immemorial. In China and India it is supposed to have been endemic for centuries.

From oriental countries it frequently swept over Europe in violent epidemics, particularly during the mediæval period, where it was productive of the most frightful loss of life, whole cities and communities being blotted out.

During the 14th century the plague visited London in an epidemic of great fatality, receiving the popular name of "Black Death" from the blackened appearance of its victims after death, due to extravasated blood.

As previously stated, the disease is always present in a more or less severe form in eastern countries, the recent terrible epidemic in Bombay (1896-97) being fresh in our minds.

Modern medical and sanitary science has however placed an effectual barrier to its spread in more enlightened countries, the last European epidemic occurring in Russia in 1878-79. With this exception Europe has been free from invasion for many years.

MEETING OF THE TRI-STATE MEDICAL SOCIETY.

The first meeting of the Tri-State Medical Society, held in this city on January 18th, was highly creditable to the new organization. Virginia stood first in point of attendance, but the indications are favorable for a good membership from both North and South Carolina.

The papers read were of a superior order and the discussions were instructive and interesting. The number of contributions offered was quite large, but the society attended strictly to business and the programme was completed before adjournment.

Dr. W. H. H. Cobb, of Goldsboro, N. C., presided with ability, and to him and to the general Secretary of the Society, Dr. Paulus A. Irving, of Richmond, Va., was largely due the success of the meeting. We publish elsewhere at more length the proceedings of the Society.

Charleston, S. C., was selected as the next place of meeting, and no doubt the reputation of that city as a medical centre will ensure a large attendance

The Seaboard Medical Association.—The meeting of the Seaboard Medical Association held in Wilson, N. C., Jan. 12th and 13th was a most successful one. The association is rapidly growing and will in the near future become one of the strongest bodies in the South. The following officers were elected: President, Dr. Lucien Lofton, Emporia, Va.; 1st Vice-President, Dr. G. G. Thomas, Wilmington, N. C.; 2nd Vice-President, Dr. E. L. Phillips, Suffolk, Va.; Secretary, Dr. John C. Radman, Washington, N. C.; Treasurer, Dr. C. O. H. Laughinghouse, Greenville, N. C. The next meeting of the Association will in all probability be announced in a very short while, and likely one of the larger towns of Eastern Virginia will be selected.

To Join the Local Medical Society is the duty of every physician—first, because it is to his personal interest to become acquainted with his fellow-practitioners in the same kind and field of work, and to learn from them the results of their experience; and secondly, because he thus benefits his profession. In season and out of season everyone must advocate the necessity of professional unity, and only by the collective action of the physicians of a locality can influence be brought to bear upon the entire body.

Necrology.

ROYSTER.—Thomas S. Royster, M. D., was born at La Grange, Granville (now Vance) County, N. C., September 14th, 1856. He died at Townesville, N. C., November 7th, 1898.

Dr. Royster took his medical course at Bellevue College of Surgeons from which institution he was graduated in 1882, having stood high in his classes throughout his sojourn there. He returned at once to his old home where he lived for three years, and then located at Townesville, Vance County, where he spent the remainder of his most useful life.

From the time of graduation until within a few months of his death he devoted himself most faithfully to the practice of his profession. As a physician he was able and efficient. He kept well abreast with the advance of the times, and was ever ready to use his skill in ministering to the sick and suffering. His very presence in the sick-room was a benediction. His patients loved him, and wherever he was known he was held in high esteem. Other physicians found him a safe counsellor.

As a friend he was ever kind and true. His courteous bearing won him many warm admirers. His loyalty to all that is noble and honorable led those who knew him to trust him implicitly, nor was their confidence misplaced.

In his home he was gentle and affable. He married Miss Sallie Alston in 1884. His devotion to her and to his four children was touching. In his last days when fully conscious that the end was near he had no fear for himself. His anxiety was for the dear loved ones whom he knew he had to leave. But these too he committed to the keeping of the loving, tender Savior, whom he had trusted long ago and had found so faithful. In all his relations in life he manifested a noble character, and in and above all in his life there was evidence of the fact that he was a true Christian. He "adorned the doctrine of God our Savior." And now in His presence, he awaits the blessed Resurrection morn. W. T. W.

As we go to press it becomes our painful duty to record the death of Dr. Geo. A. Foote, of Warrenton, N. C., a most useful and prominent citizen.

News and Items.

Artificial legs and arms were in use in Egypt as early as B. C. 700.

According to rumor, the German Empress has fallen a victim to consumption. In the last two years, her weight has fallen to 124 pounds.

A German biologist has calculated that the human brain contains 300,000,000 nerve cells, 5,000,000 of which die and are succeeded by new ones every day.

Caroline Crob, of Boston, has left \$100,000 to two prominent physicians of that city for investigations, to find some way of curing cancer, consumption, and other diseases now regarded as incurable.

I do not believe in operating on all cases of appendicitis. I'd rather have a live man with an appendix than a dead one without one. I do not believe with the witty Frenchman that no case is complete without a post-mortem. If the patient is no worse after forty-eight hours of observation, let him alone; let him get well.—*W. W. Keen.*

The *Medical and Surgical Review of Reviews* is the name of a new journal published in London, under the editorial management of Dr. Nathan E. Boyd.

The last victim of the plague in Vienna has recovered, and the outbreak is at an end. Dr. Rudolph Poch, who treated those attacked, shutting himself up in the pavilion with them, has received from the Emperor of Austria the Knight's Cross of the Francis Joseph Order, in recognition of his bravery and devotion.

Care of the Soldiers' Feet.—A new branch of the British army service is about to be established, the adjutant-general having directed the chief of the surgical staff at Aldershot to form a class of non-commissioned officers for instruction as chiropodists.

Strong Antiseptics.—The use of very strong antiseptics rather hinders than promotes the repair of Tissues. In an operation wound that has been made under strict asepsis, the less washing out the better.—*Int. Jour. Surg.*

Dr. and Mrs. E. R. Russell, of Hickory, N C., are candidates for the congratulation of the entire profession. In December there was born to them a fine son.

Physicians and Horseless Carriages.—Two physicians of Brooklyn have abandoned the horse and buggy and have adopted the horseless carriage. These auto-mobiles can be started, stopped, or backed quickly and accurately by a single movement of the lever.

Centenarians.—A woman died in this city last week who would have been one hundred and two years old had she lived six days longer. An old lady in New Hampshire celebrated the hundredth anniversary of her birth on January 3rd by taking a sleigh ride, the thermometer registering at the time 20° below zero.

Bright-red spectacles, accompanied by internal doses of calomel, form a new German specific against seasickness. Seasickness is due to a lack of blood in the brain, while (according to Epstein's investigations) red sends blood to the brain with a rush. By looking at one point for some time through the red glasses the patient is cured radically.

The State Board of Medical Examination and Registration of Indiana has begun prosecution proceedings against one H. J. Jones for practicing without a license. Jones is an osteopath, and the case will be likely to bring into official cognizance the acts of these people, whom a correspondent aptly describes as "the best organized and most dangerous set of charlatans of the age."

In the *Bulletin del Conesjo Superior de Salubridad* of February, Dr. Ruveltos, a public vaccinator of Mexico, states that in twenty-eight persons vaccinated whilst they were suffering from whooping-cough, the frequency and violence of the attacks notably diminished from the moment of vaccination, and that when the pustules reached maturity the patients were almost or entirely cured.

Too Bad to Die.—A poor little street arab was brought into a hospital by the police. He had been run over by a 'bus and was badly injured. The chaplain was sent for, as it was thought impossible that the boy could live many hours. With little tact the chaplain began the interview thus: "My boy, the doctors think you are very much hurt. Have you been a good little boy?" Boy (much bored): "You git aout." Chaplain (shocked): "But I am afraid that you are not a good little boy, and you know you may perhaps be going to die." Boy (anxious to end the interview): "Well, 'tain't none o' your business any'ow. Wot's me death got to do with you? 'Ave you got a pal in the coffin line?"—*British Medical Journal*.

Society Proceedings.

Tri-State (S. C., N. C. and Va.) Medical Society.

Organization meeting in Charlotte, N. C., January 18th and 19th, 1899.

The Society was called to order at 11 a. m., on Wednesday, January 18th, by Dr. E. C. Register, of Charlotte, and divine blessing invoked by H. F. Chreitzberg, D. D., of Charlotte, after which Col. H. C. Jones, of Charlotte, in his inimitable manner welcomed the Convention, extending to all visitors the freedom of the city.

Dr. Hugh T. Nelson, of Charlottesville, Va., responded to the address of welcome in a graceful and happy speech.

The Society being now ready for business, Dr. W. H. H. Cobb, of Goldsboro, N. C., the Temporary President, took the chair.

The first act of the president was to appoint a committee on Constitution and By-Laws in order to have a permanent organization.

The following were appointed to act on this committee: Dr. J. C. Tompkins, of South Carolina; Dr. Paul Barringer, of Virginia; Dr. Geo. W. Long, of North Carolina.

Dr. Paul Barringer, of the University of Virginia, read the first paper; subject, "Purposes of the Tri-State Medical Organization," in which he set forth in a clear and concise manner the object of the Society.

Dr. J. M. Fladger, of Summerton, S. C., read a paper on "Pseudo-Membranous Enteritis," giving the history of an interesting case in his practice.

A paper by Dr. E. B. Glenn, of Asheville, N. C., "Cold as a Remedial Agent," was, owing to the author's absence, read by title.

Dr. J. N. Upshur, of Richmond, Va., now read a paper on "Lithemia," in which he advocated earnestly dietic treatment, cutting down the nitrogenous foods, except milk. The discussion of this paper brought out many points in regard to gout and was most instructive.

THE AFTERNOON SESSION.

The first order of business was the report of the Committee on By-Laws, which was read by Dr. J. C. Tompkins, Chairman, and after considerable discussion and slight amendments was adopted.

A paper was now read by Dr. A. B. Knowlton, of Columbia, S. C., on "Simultaneous Blood Washing and Blood Letting in Uraemia," followed by instructive discussion.

"A Plea for the Earlier Recognition of Pulmonary Consumption," was the title of a paper read by Dr. L. F. High, of Danville, Va.

Dr. John Dunn, of Richmond, Va., read a paper, "Remarks on the Relation of Diet to Hay Fever and Asthma," which elicited considerable discussion and brought out many interesting points concerning these diseases and their treatment.

Dr. Geo. W. Long, of Graham, read a paper; subject, "Appendicitis Complicated with Intestinal Perforation," giving the history of an unusual case. Discussed by J. W. Long and Faison.

"The Diagnosis and Treatment of Tubercular Peritonitis," was the subject of a paper now read by Dr. W. L. Robinson, of Danville, Va., who was followed by Dr. D. A. Stanton, of High Point, with a paper on "Dystocia," which was discussed by Drs. J. W. Long, Walton, Ben Johnston, Parrott, Nelson and Hunter McGuire.

Dr. L. G. Frazer, of Youngstown, N. C., read an instructive paper "Ovarites; Acute and Chronic," and was followed by Dr. H. B. Weaver, of Asheville, N. C., whose paper "Modern Views on the Nature and Treatment of Pulmonary Consumption" was ably discussed by Drs. Levy, Burroughs, High, McAnnally and Upshur.

Dr. W. T. Woodley, of Charlotte, addressed the Society on "Application of Electricity to Diseases of Women," which was discussed by Drs. Walton and Knowlton.

Dr. J. W. Long requested, owing to the number of able papers yet to be read by gentlemen from a distance, that he be allowed to read his paper "Drainage in Abdominal Surgery" by title.

Dr. J. A. White, of Richmond, read a paper, subject, "Headache, Ocular and Nasal;" discussed by Drs. Kollock, Kuyk, Dunn and Davidson.

Dr. Kollock, of Charleston, followed with a most interesting paper, being "Report of a Case of Complete and Partial Ophthalmoplegia of the Right Eye;" discussed by Upshur and Dunn.

The following papers were read by title:

Brief Report of Cases, Dr. J. S. Brown, Salisbury, Some Practical Points in the Treatment of Diphtheria, by Dr. R. D. Garcin, Richmond. The Medical Examining Boards of N. C. and Va.,

Their Relation to Each Other and the Profession, by Dr. A. S. Preddy, Richmond; State Institutions for Epileptics, Dr. H. S. MacLean, Richmond; The Medical Treatment of Appendicitis, Chas. B. McAunty.

NIGHT SESSION.

The night session was held in the parlor of the Central Hotel, the following being the order of business:

Dr. W. H. Wakefield, of Charlotte, N. C., read paper on "The Eye as a Causative Factor in Functional Nervous Diseases," which was discussed by Drs. Kollock and Kuyk.

"Treatment of Fractures," was the subject of paper read by Dr. Hugh T. Nelson, of Charlottesville, Va. Discussed by Drs. Bahnson and Johnston.

Dr. E. C. Levy, of Richmond, Va., read paper on "What Medicine Owes to Bacteriology." Discussed by Drs. Weaver, Burroughs and Kollock.

Dr. Dirk Adrian Kuyk, Richmond, Va., read paper on "The Influence of Chronic Nasal Occlusion on Cerebration." Discussed by Dr. W. S. Davidson.

The following committee on publication was appointed: Dr. Hugh M. Taylor, Richmond, Va., Dr. J. N. Upshur, Richmond, Va.

The following gentlemen were, on ballot, elected members of the Executive Council:

NORTH CAROLINA.

Dr. J. W. Long, Salisbury, to serve three years; Dr. J. A. Burroughs, Asheville, to serve two years; Dr. E. C. Register, Charlotte, to serve one year.

SOUTH CAROLINA.

Dr. S. C. Baker, to serve three years; Dr. J. C. Tompkins, to serve two years; Dr. J. M. Fladger, to serve one year.

VIRGINIA.

Dr. Hugh T. Nelson, Charlottesville, three years; Dr. W. L. Robinson, Danville, two years; Dr. A. S. Preddy, one year.

The Executive Committee made the following nominations:

President, Dr. W. H. H. Cobb.

Vice-President from Virginia, Dr. W. L. Robinson.

Vice-President from South Carolina, Dr. C. W. Kollock.

Vice-President from North Carolina, Dr. H. B. Weaver.

Secretary and Treasurer, Dr. Paulus A. Irving.

Dr. Hunter McGuire read his paper on "Diagnosis and Treatment of Cancer of the Breast" which was discussed by Drs. Weaver, Barringer and Robinson and also recommended the following as a subject for discussion as presented by the By-Laws, at the next annual meeting.

THE SOUTHERN NEGRO.

(1.) His Hereditary Tendencies, as learned from his race history in America and Africa.

(2.) His Racial Fecundity; the influence of climate, city and country life.

(3.) His Race Mortality, in childhood, in adult life, in city and country.

(4.) His Recent Erratic Tendencies; the cause, suggestions as to prevention.

Caustic Paste for Dermatotherapeutic Use.—Unna recommends (*Sem. med.*, XVIII, p. 162) the following formula as a caustic paste for dermatotherapeutic use:

Caustic Potassa, 5 parts.

Calcined Lime, 5 parts.

Black Soap, 5 parts.

Distilled Water, 5 parts.

Mix, and add:

Morphine Alkaloid, 1 to 2 parts.

This paste, which the soap and water render unctuous, and in which the lime prevents the too rapid action of the atmospheric carbonic acid on the potassa, may be advantageously employed in certain localized cutaneous lesions. The paste is easily tolerated, due to the morphine present in it, as the pain, which is at first quite sharp, rapidly diminishes and entirely disappears in half an hour, no longer being felt even when the paste is permitted to exercise its caustic action for twenty-four hours. On account of the considerable proportion of morphine present, however, the paste can only be applied to limited areas.—*Am. Med. Surg. Bul.*

Book Reviews.

Horton's Physicians' Perpetual Daily, Weekly and Monthly Record Sheet.

This Record Sheet is a very convenient form of visiting list so arranged that more names can be entered and all seen at a glance, than in any other monthly pocket-list.

It does away with the old style, bulky visiting list and takes the place of the ordinary day book and is an aid to rapid posting of accounts to the ledger. It is perpetual, and space can be used as required.

It may be used with any system of bookkeeping.

It enables the physician to enjoy the pleasure of using a fresh, clean record sheet in place of the old style bulky book. Sold only by the publisher, Dr. Alex F. Horton, Brooklyn, N. Y., at \$1.00 for 30 Patients Weekly—56 weeks.

Diet for the Sick. BY MISS E. HIBBARD and MRS. EMMA DRANT, Matrons at two large hospitals in Detroit—103 pages; board sides, postpaid 25 cents. The Illustrated Medical Journal Co., Detroit, Mich., Publishers.

This is the Third Edition of this handy and popular little book. The receipts for dishes for the sick are all the result of experience and are those largely used in the Detroit hospitals.

The booklet is intended to be given to the family by the physician, and for such purposes, one-half dozen will be sent, postpaid, on receipt of \$1.00. Proper food for the sick is often the "best medicine" for them, and this little book is brimfull of usefull food-knowledge.

A Pocket Medical Dictionary.

Messrs. P. Blakiston's Son & Co. have issued a new edition of Gould's Pocket Medical Dictionary containing over 21,000 medical and technical words—including all the principal words used in medicine and the collateral sciences—giving their pronunciation and definition.

The definitions are lucid and concise, and are framed in the terms supplied by the latest authoritative literature, rather than by purely philological method. This volume is nicely bound in leather and can easily be carried in the pocket. It is very convenient for the medical student, and also for the busy doctor desiring to hurriedly look up the meaning of any term or word that has escaped his memory. Price \$1.00.

The Physician's Visiting List (Lindsay & Blakiston's) for 1899. Forty-eighth year of its publication. Sold by all Booksellers and Druggists. Philadelphia—P. Blakiston, Son & Co.

The Physician's Visiting List is much like the one of last year, and is the oldest list published. It is of very convenient form, and while it remains so popular with physicians it will probably not be changed. One item worth noticing is the convenient size of the book, rendering it less burdensome to the coat pocket than others of the same class. The binding is of excellent leather, of sufficient strength for a year's use in the pocket. It is issued for 25, 50, 75 and 100 patients per day or week.

Review of Medical and Surgical Progress.

Treatment of Pneumonia.—In a very interesting paper Dr. Morris Mauges (*Medical News*) discusses the treatment of Acute Labor Pneumonia in Adults. He quotes the records of the Massachusetts General Hospital, showing 1,000 cases of Acute Pneumonia occurring from 1822 to 1889, in which, after eliminating all doubtful cases, i. e. "where death could be reasonably accounted for, that is to say, all who died who were over 50 years of age, were intemperate, delicate, or had complications." The mortality rate was practically the same in the last decade with all the modern change of treatment, and knowledge of pathology as it was in 1822 when such cases were managed by free bleeding, purgation and blisters. Thus for a period of 60 years or more the medical treatment of pneumonia has shown no material improvement so far as the mortality rate is concerned.

The author claims that there is no escape from the conclusion that at present we are powerless to directly influence the course of the disease. He has, however, great hope in the ultimate discovery of an antitoxin treatment that will furnish an efficient means of overcoming the pneumococcus toxemia. Hitherto all efforts in this direction have been unsuccessful and the difficulties in the way are very numerous.

After showing that some cases require only careful watching and good nursing to insure recovery, Dr. Mauges goes on to discuss with great conciseness, those cases which demand medical interference.

When treatment is required it must be directed against the toxemia. Its object is fivefold: (1) To maintain life; (2) to support the heart; (3) to control undue fever; (4) to relieve suffering; (5) to control complications.

I. *To Maintain Life.*—This includes the nursing and diet, which are too familiar to require any details. I wish, however, to emphasize the importance of watching the stomach, for not enough attention is paid to ascertain whether it be unduly distended with gas or improperly digested food; even liquids may be improperly disposed of by the stomach. Routine percussion of the stomach is far more important than routine examination of the lungs. The heart must be spared in every way; let its burdens not be unnecessarily increased by upward displacement from the unduly distended

stomach and intestines. All articles of diet which may produce flatulence must be rigidly excluded, and the milk must be adapted to the patient both in quantity and in preparation. Do not over-feed these patients; the disease is a very short one, and the patient's surplus fat and tissues will supply any deficit in the diet. Spare the stomach from undue medication as much as possible, and use the hypodermatic method in preference. Give water freely, either cold, hot, or carbonated (unless the patient is cyanotic), for it allays the thirst, reduces the fever and increases the elimination of toxins by promoting free diuresis. For the latter purpose the combination of a light Moselle wine with an alkaline mineral water is exceedingly useful.

II. *To Support the Heart.*—As well described by Douglas Powell, the dangers are three in number: (a) Impaired nerve power on the part of the pneumogastric branches of the cardiac plexus; (b) impaired nutrition of the hard-working heart-muscle from insufficient or badly aerated blood-supply; (c) mechanical tendency to overdistention of the right cavities and to depletion of the left cavities of blood.

The drugs which best meet these indications are strychnin, caffein, and nitroglycerin. Strychnin and nitroglycerin are best given in reliable tablets, the caffein in solutions of the benzoate or salicylate. If the results are not promptly obtained the drugs should all be administered hypodermatically. Nor should we hesitate to use them freely, for the action of each is clean cut, and any overdosage can be recognized very readily. My own experience has convinced me of the value of large doses of strychnin, to which Roosevelt called attention, in tiding a heart through the crisis. For the same purpose we may also resort to the hypodermatic injection of camphor in sweet almond oil. Osler also reports good results from hypodermoclysis. A struggling heart is often aided by an ice-bag over the precordium.

Van Stantvoord has very recently published an interesting paper, which throws an entirely different light on the subject of heart failure in pneumonia. His views are based upon the important experiments of Romberg, which proved that the cardiac weakness in pneumococcus toxemia is due mainly to a vasomotor paralysis, it being clearly demonstrated that arterial pressure is low as the result of relaxation of the peripheral blood-vessels. This is entirely opposed to the prevailing view that the characteristic pulse

in pneumonia is one of high tension. If subsequent observations prove the correctness of these views we should be cautious in the use of nitro-glycerine for obvious reasons and should restrict its use to the temporary relief of embarrassment of the right heart.

These experiments may also clear up the question of the use of digitalis in pneumonia, about which so much bitter discussion has been waged. The extreme views of Petresco have not found favor. In answer to the low mortality of 2.06 per cent. reported by him and his school in 825 cases (I believe most of these cases were in soldiers, his statistics being those of the military hospital at Bucharest,) I may cite the extremely low mortality of 3.06 per cent. in 40,000 German soldiers. Petresco has certainly demonstrated that the danger from these colossal doses of digitalis (12 grams or 180 grains daily) is small, but according to Reiner they must not be continued more than two days at the utmost. Another explanation of the tolerance for these large doses may be found in the experiments of Brunton and Cash, which clearly show that the action of digitalis is lessened in febrile conditions. A safe guide for the use of this drug is that given by Von Juergensen: "Digitalis is indicated as soon as the pulse rises in frequency and at the same time becomes irregular without any demonstrable cause in patients whose hearts were weak before the attack, or in patients whose hearts have weakened during the course of the disease. The fulness or emptiness of the pulse is important in determining this; if it is still full we can afford to wait a little, especially toward the end of the disease when not infrequently one of the indications of an impending favorable turn is slight irregularity of the pulse."

III. *To Control Hyperpyrexia.*—In considering this indication it should always be borne in mind that temperatures ranging up to 104° F. are as normal a feature of pneumonia as dyspnea and rusty sputum. The view which is now generally accepted is that fevers up to this point are the normal reaction of the organism to the invading pneumococci. That these "normal" fevers are even of service to the patient is well shown in a table published by Douglas Powell, in which he demonstrates that pneumococci grow to perfection at 35° and 37° C. (95° to 98.6° F.) and not at all at 40° to 42° C. (104° to 107.6° F.). He also directs attention to the value of the leucocytosis of fever in removing torpid or inert cocci. But, as in all symptoms of pneumonia, we must individualize, for in some patients a fever of 102° F. may inflict more damage than 105° may

in others. The thermometer, then, is not the only gage as to the question of the fever being unduly high; the true guide is the patient's general condition.

The use of large, flat ice-bags is the most convenient method for the reduction of undue fever, two or three being applied to the affected area. They are usually well borne and not a little to the patient's comfort. The ice-bag, however, is no specific against pneumonia, as Mays would have us believe. Occasionally the prolonged use of ice-bags causes intercostal neuritis, as I have observed in two cases. When the nervous symptoms are very pronounced we should not hesitate to resort to cold baths, using them in the same way and on the same general principles as in typhoid fever. If less heroic measures be preferred prolonged immersion in luke-warm baths (90° F.) may be used instead. The contraindications to cold baths are very extensive consolidation of the lungs, marked adynamia, very rapid breathing, feeble heart-action, and arteriosclerosis. Cold sponging and cold packs are often useful. Baruch recommends moist compresses which envelope the entire chest; their antipyretic effect is not very marked and extensive furunculosis (due to the staphylococcus aureus) was noted in two cases at the Mount Sinai Hospital. The large doses of quinin which formerly found so much favor are now seldom employed. The routine usage of the coal-tar products is now, fortunately, discarded; the occasional use of them in small doses is not objectionable.

IV. *To Relieve Suffering.*—The most striking indication under this head is the relief of the pleuritic stitches and the distressing coughs which wear out the patients and rob them of their much-needed sleep. These are best relieved by the hypodermatic injection of morphin, which may be resorted to as soon as possible without unnecessarily weakening the patient by temporizing with other means. The Paquelin cautery often acts magically in quieting pleuritic irritation; no one who has ever used it will temporize with sinapisms, blisters, leeches, poultices, etc. The ice-bag is also very valuable but does not act as promptly as either of the above. Quite recently I have been using a new drug, heroin (diacetic-acid-ester of morphin,) as a sedative for these thoracic symptoms, and, so far as my present experience will allow me to judge, I believe that this drug will be found to be a valuable aid in quieting distressing coughs. It has acted well in some cases which were not relieved by codeine. It is given in tablet triturations or powders in doses of $\frac{1}{12}$ to $\frac{1}{8}$ of a grain every four hours.

Sleep is an imperative necessity for an overworked patient with pneumonia; to secure it is one of the most imperative indications in the treatment. The nervous exhaustion of which it is often the first herald, may be prevented by the timely use of hypnotics. Of these morphin and chloral are the best. Chloral, when combined with a cardiac tonic is perfectly safe. Balfour, the veteran clinician of Edinburgh, is most enthusiastic in his praise of it. We may also resort to cold packs or alcohol.

Of the value of oxygen in the relief of dyspnea and cyanosis it is difficult to give a final judgment. The opinion is slowly but surely gaining ground among the great clinicians that oxygen has been much overrated in the treatment of pneumonia. Theoretically its employment seems to be so well founded and its application is so simple, the apparent relief so striking that the universality of its use is not at all strange. But does it really do any good in those cases in which we want its effects most? The primary effects soon wear off in serious cases and the dyspnea and cyanosis increase in spite of its free use. Let the enthusiast for oxygen remember that the lung is just as consolidated immediately after the crisis as it was before it, and yet what a change there is in the patient's breathing. This proves that the dyspnea is not entirely mechanical in origin as is generally thought, but is mainly the result of the pneumococcus toxemia. In tiding the patient over sudden attacks of dyspnea and cyanosis oxygen is most useful.

V. *To Control Complications.*—Of these the most important are pleurisy with effusion, empyema, pericarditis, and endocarditis. The treatment of these conditions in pneumonia differs in no wise from that ordinarily pursued and hence requires no special discussion. However, it may be added that effusions into the chest, either serous or purulent, ought to be removed as soon as the amount of fluid becomes large enough to interfere with the lung in any way.

Combined Typhoid and Malarial Infection.—(Irving Phillips Lyon, M. D., *Am. Jour. Med. Sci.*, Jan., 1899.) The paper is based on the reports of thirty cases that meet the following conditions:

1. That typhoid fever and malarial fever coexist in the same individual.
2. That this coexistence be shown (a) by the discovery of the parasites of malarial disease in the blood, and (b) by strong evidence clinical, pathological, bacteriological, etc., of true typhoid fever.

The advocates of the disease known as "typho-malarial fever" claim, as a rule, in America, that it is a prolonged fever, exhibiting typhoid characteristics, and ushered in and often accompanied during its course by repeated paroxysms of chill, high fever, and sweating. The onset of the disease is more abrupt than that of simple typhoid fever, and its termination is often by crisis. Billious symptoms are frequent. Jaundice, or an icteroid hue of the skin, is more common. Abdominal tenderness, distensions, etc., are usually present, though often slight. Diarrhea may or may not be present. Rose-spots seldom develop. The course of the fever is shorter and markedly milder than that of typhoid fever. The prognosis is highly favorable and the mortality very low. Severe symptoms, such as hemorrhage, perforation, etc., sometimes, though rarely, occur, as in simple typhoid fever. As to the value of quinine much diversity of opinion is found. All agree that it does not influence the course of the typhoid element, and many state that its influence in controlling the malarial manifestations is slight or entirely wanting. Others state that it is of distinct value in combatting the malarial element. Most of the French writers state that the course of the disease is usually severe and the mortality high; that complications are common; that rose-spots usually appear; that quinine has a modifying influence on the disease. Some French writers hold that the two diseases are merely superimposed, the one upon the other, each preserving its individuality, and others find that the clinical picture varies markedly in individual cases. As a rule the Italian observers hold that the two diseases are coincident and superimposed, each preserving its individuality. It is thus seen that the American description of "typho-malarial fever" differs essentially from the French.

A glance at the recorded cases shows that, as a rule, the course of the disease was of at least average severity as compared with typhoid fever and generally of greatly increased severity. Only one or two cases exhibited a mild course. The mortality was high. Ten of the thirty cases ended fatally, a mortality of 33.3 per cent. This high rate of mortality is nearly double that of typhoid fever, if we take a large body of typhoid statistics covering a long period of years and collected from different climates and regions of the world. Complications, often severe, are seen to have occurred in a large number of the cases. Rose-spots are specifically mentioned in twenty of the cases, and in several of the other cases they may have

occurred, although the notes are silent on this point. Quinine was given on the appearance of malarial manifestations in nearly all, if not, in fact, in all of the cases, and is seen to have had an unfailing influence, either controlling the malarial element for a period or removing it entirely from the scene. Quinine thus shows itself to be a true remedial agent, and appears to be as efficacious in controlling the malarial element in the combined infection as it is in uncomplicated cases of malarial fever. It is also of diagnostic value, second only in importance to the microscopical examination of the blood.

As to the clinical picture presented, no uniformity is found. The typhoid picture, however, was always present, and in nearly all of the cases dominated the scene. The malarial manifestations appeared at different points in the different cases. Repeated paroxysms of chill, fever, and sweating at the onset of the disease appeared in many of the cases, in this respect resembling the picture generally described in "typho-malarial" fever. In other cases these features were absent. In some of the cases febrile paroxysms occurred during the height of the disease and irregularly through its course, though this was the exception. In other cases the malarial paroxysms occurred only in the convalescence from the typhoid. It is interesting to note also that in several cases malarial paroxysms directly preceded or accompanied the onset of the typhoid, disappeared completely from view during its course and again reappeared during convalescence.

In these cases, then, the observations of the French, rather than of the American observers, are sustained. The important point of difference, clinically between the "typho-malarial fever" of the French and of the Americans is found in the severity and mortality of the disease. The probability is that the cases described by Southern writers as "typho-malarial" will prove, when scientific methods are used in studying the cases, to be either mild cases of simple typhoid or continued malarial fever. The cases where there is a true combining of the two diseases is very rare, in Johns Hopkins Hospital where hundreds of cases of each disease are treated only two such cases having been observed. In tropical countries, where malaria is more common and typhoid prevails the coincidence may occur more commonly.

Fear Neurosis.—Under the head of Fear Neurosis, Dr. Prince (*Boston Med. and Surg. Jour.*) describes a kind of morbid self con-

sciousness which he has observed quite frequently in musicians and others who appear frequently before the public. From numerous repetitions the physical and mental manifestation of this timidity persist even after the subject had acquired a great degree of confidence in his ability. The habit, so to speak, had become fixed upon his nervous system.

The following is one of several cases reported in detail:

"A professional singer, thirty years of age, consulted me for the following symptoms: Whenever he sang in public he was affected with (1) feeling of "goneness" and general trembling; (2) feeling of throbbing in the head; (3) palpitation; (4) perspiration; (5) general weakness. The same group of symptoms always appeared and in the same order. The trembling was objective, so that he could with difficulty hold his music. He had suffered in this way from ten to twelve years. He stated most emphatically that at present he had no lack of confidence in himself but, on the contrary, he had a high opinion of his own ability—in fact, as he expressed it, was rather 'stuck on himself.'

"He did not mind the symptoms *per se*, but they interfered so much with his work as to be a serious hindrance. For this reason he sought advice. He knew of no cause for his trouble, and did not ascribe it to shyness or timidity, as he did not feel shy or timid. He thought it might be due to some sort of organic nervous disease, and this idea and the importance of being able to fill a professional engagement led him to seek advice.

"If he was to give a concert, during the two or three days preceding the appointed time these symptoms came on whenever he thought of the concert, that is, the idea of singing, and even practising, brought them on. He also had then a desire to have a movement of the bowels. This circumstance emphasizes the independence of the neurotic process. Careful inquiry elicited the facts that as a boy he was abnormally shy and bashful, and that when he *first began to sing* he had no confidence in himself. At this time these symptoms developed. But since learning to sing his shyness ceased and he has regained thorough confidence in his ability, but the symptoms which were originally excited by timidity have persisted, so that a sort of paradoxical condition exists—the physiological manifestation of an emotion without the emotion itself. For it will be remarked that the symptoms in this case are only the ordinary manifestations of timidity and lack of confidence in one's self, such

as would be excited in a novice by the ordeal of a public performance.

"But in this case, by the law of association and by frequent repetition, they have been formed into an automatic process, so associated with the act of singing or idea of singing that either the act or the idea would excite the whole. But this, as the sequel will show, would not take place unless the subject made a suggestion to himself that this would occur. This suggestion was the apprehension or expectation that the neurosis would appear and spoil his performance.

This expectation was always present in his mind before a performance, and must be distinguished as something very distinct from timidity, which did not exist, as he thought. But I think it is open to question how far any one can analyze and state with precision the nature of his own state of consciousness at any particular moment. Nevertheless little more than traces of timidity was probably present. In other respects his health was good, excepting that he was a poor sleeper, but he was of a nervous temperament. Five or six years ago his health had temporarily broken down from overwork. After this he was worse."

The patient was given the following, written upon a piece of paper and he was requested to learn it by heart and keep it constantly in mind: I know my symptoms are only a group of nervous processes which a long while ago were associated together by a lack of confidence in my ability to sing. But having now this confidence and knowing the nature of the habit, I know this association will be broken and there is no need to apprehend a return of the symptoms.

This lesson was enforced by suggestion while in the hypnotic state, with the result, as stated, of a prompt cessation of the disturbing symptoms.

A Case of Carbolic Acid Poisoning Treated by Venesection and Injection of Saline Fluid; Rapid Recovery.—Oliver, in *The Lancet*, reports a case of an unmarried woman aged twenty-one years, who was admitted to the infirmary in a state of coma due to carbolic acid poisoning. The internal saphenous vein of the left leg was opened and eight ounces of blood was removed. Four pints of a normal saline solution at a temperature of 100° F. was then injected into the vein; $\frac{1}{50}$ grain of sulphate of atropine was given hypodermically to stimulate her respiratory center. Half a pint of milk beaten up with two eggs; to which was added one minim of croton oil, was

passed down the stomach tube. By degrees the patient, who at first seemed moribund, began to come round, her pulse gradually improved, and the respiratory movements became stronger. In a few hours she had rallied sufficiently to recognize those around her. Glycerin in drachm doses given frequently to allay the burning sensation in her throat and esophagus. On the following day, when seen by Dr. Oliver, she seemed remarkably well and the pulse was good. There was still pain on pressing the epigastrium. For three days the urine was dark-green in color; it contained phosphates, but never albumen. The wound made in the leg healed kindly, and recovery generally was rapid and complete.

In conclusion, Dr. Oliver says: "Once a poison like carbolic acid has got into the blood, washing out of the stomach is not enough. The rational treatment is, in addition, to transfuse, or to do as was done in this case, bleed and transfuse."

Is Leprosy Contagious?—In the *Med. Age*, Dec. 27, Dr. Roger S. Chew, long a resident at Calcutta, corroborates the statement made by Dr. Zambaco regarding the non-contagiousness of leprosy.

The profession at large has regarded leprosy as being contagious to a degree that rendered isolation a necessary safeguard against the spread of the disease, but the observation of Drs. Chew and Zambaco would indicate that this loathsome disease is contagious to only a feeble degree. Dr. Chew's observations extended over a period of 15 years and included 1,034 lepers; of these no less than 422 were cured of their disease while medicine failed to produce any permanent benefit on the remaining 612.

The writer calls attention to the fact that it is impossible to find contact more complete than in the procreative act, and yet there is ample evidence in India of numerous cases where people have lived together as man and wife for years, having children born to them, one of the parties being a leper of the worst degree, yet not infecting the other.

So also are there instances where the remaining members of a family have with impunity eaten, played and slept with a leprous brother or sister. The author gives short histories of several cases of undoubted leprosy in which the unfortunate lepers have gone in and out in their respective families and communities without apparently infecting others. Out of the 1,034 cases studied, 624 were married, and in only four cases did the husband infect the wife, while on three occasions the wife affected the husband, and while 44 of the married pairs had no children there were 1566 conceptions among the remaining 580—proving that the "sterility of lepers" is a myth, and that the probabilities are largely against contagion.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

The Cure of Cataract Without Operation.

This is one of the dreams that occur from time to time.

The "Absorption Quack" continues to delude his victims into paying him large sums to have their "imaginary" cataracts absorbed. Just now a homœopathic drug firm in the West is sending out literature setting forth the wonderful virtues of a particular drug—supplied by them only—and for which they charge the insignificant price of \$1.00 per fluid drachm.

It is needless to say that in reply to a letter addressed them asking for "testimony of reputable physicians" who had used the drug, none has been furnished showing that a single case of lenticular cataract has been cured by this or any other drug—none's the pity.

Water in Ophthalmic Practice.—E. E. Hamilton (*Am. Jour. Ophthal.*, June, 1898) observes that atropia and other alkaloids are apt to deteriorate with age and should therefore be kept in a 3 to 4 per cent. solution of boric acid. Cold water is indicated in traumatism, to prevent or control hemorrhage, when the inflammatory process is unattended with severe pain; and in inflammation which is usually attended at some stage of the process with discharge of mucus or pus, or both. Conversely, hot water is indicated in the absence of recent injury, in the absence of mucus or pus, and in the presence of pain.

Cold is best applied with compresses taken from blocks of ice, and renewed with sufficient frequency to maintain the degree of cold required. Often they need to be changed once or twice a minute, and continued day and night. This means two nurses, who should be responsible. Heat is best applied with compresses taken from water, which may be used as hot as the finger will bear. In keratitis, water as hot as can be borne, dropped directly upon the cornea, has been recommended. Eye-cups with hot water may be used.

Poultices should not be used in ophthalmology.—*Am. Med.-Surg. Bull.*

The Surgical Treatment of Cataract.—Dr. Ernest F. Neve (*Indian Medical Record*), as the result of a careful review of seven hundred and thirty cases of extraction of cataract, arrives at the following conclusions: 1. Careful selection of cases is the most important factor of success. 2. Hardly second to it is the employment of scrupulous antiseptic technique. 3. A large percentage of eyes, the conjunctival sacs of which are in a doubtful condition, can nevertheless be operated upon with success after careful preliminary antiseptic and astringent treatment for days or weeks. 4. Under such conditions, however, naturally, the percentage of failure rises sharply. 5. But the measure of success attained amply justifies the additional risk. 6. Previous iritis has a particularly prejudicial effect on the results. 7. The omission of iridectomy, while producing excellent results in the majority of cases, does undoubtedly increase the risk of prolapse of the iris and also of occlusion. On the other hand, the danger of vitreous loss is diminished. 8. The attempt to extract the lens in its capsule is so frequently attended with vitreous loss that it should be restricted to cases where the lens nucleus is small. 9. As an all-round operation, von Graefe's linear extraction with iridectomy is the most suitable, and in the long run gives the best average results.—*New York Medical Journal*.

The Treatment of "Unripe" Cataracts is a subject of great interest to all surgeons who "operate for cataract." Even with antiseptic and improved operative technique the fact remains that it is extremely difficult to completely remove soft and loose cortical matter. There is no means of diagnosing with absolute certainty a completely ripe or sclerosed cataract; and in operating on even the densest in appearance often some cortical matter is left behind. In order to hasten the ripening of immature cataracts and thus shorten the weary period of waiting in semi-blindness various expedients have been resorted to. The lens has been removed in its capsule, but this operation is apt to be followed by prolapse of the vitreous or intra-ocular hemorrhage. Needling the lens is dangerous except in the young as in adults it is attended by risks of glaucoma, iritis, etc. Immediate extraction with iridectomy is to be preferred to any of the methods named, but in a large percentage of the cases, secondary operations, more or less dangerous will be required.

Irrigation of the anterior chamber, after extraction, has yielded good results in these cases; and recently Dr. McKeown, of Ireland, has proposed an additional mode of procedure which he has used successfully in a large number of cases. His method consists in combining inter-capsular injection with intra-ocular irrigation, using a sterile salt solution, 4 grains to the ounce of distilled water at blood heat. The doctor uses a special apparatus for this purpose and after making the corneal incision as in ordinary extraction he detaches the unripe and soft cortical matter by means of his hydraulic apparatus, washing it out of the eye, and then removes the hardened nucleus of the lens by means of the scoop.

The Operative Treatment of Pharyngeal Adenoids, is the title of a paper by Wurdemann, read before the Wisconsin Med. Society and published in *The Laryngoscope*. The author calls attention to the fact that the adenoid structures of the pharynx are of an appreciable size in the majority of children, but that shrinking usually takes place during adolescence if persistent or sufficiently enlarged to cause nasal or eustachian obstruction they should be removed.

Very few children of tender years have nasal catarrh. The so-called catarrh is generally in the naso-pharynx and is due to adenoids and is cured by their removal. The necessity for removal of these growths was not recognized until a few years ago. Nature cures many cases of adenoids and enlarged tonsils and it is only when symptoms of catarrh, mouth breathing and deafness appear that the cases are brought to the notice of the physician. Effective treatment of pronounced adenoid growth or enlarged tonsils is essentially surgical. Local medicinal applications are not to be considered as curative—they are merely palliative. Cleansing sprays do good but do not cure and the same is to be said of Syr. Ferri Iod.

The author reports 247 cases with operations upon 189 with satisfactory results in every case.

The operation was done in most cases under chloroform with the patient lying on the back the face being turned to the light. The operation preferred by the author is a combination, by the Gottstein Curette, pharyngeal forceps and finger nail. While the operation is somewhat bloody, in several hundred operations of this kind the author has seen none that gave rise to any anxiety on account on hemorrhage.

The results are *immediate* and always satisfactory. One of the principal reasons why the aurist is consulted in children having

adenoids is on account of deafness, due to eustachian obstruction. Operate and then Politzerize the middle ears for a rapid cure.

Enlargement of the Lingual Tonsil as the Cause of Cough.—

B. Robinson, before the American Laryngological Association (*Bost. Med. and Surg. Jour.*, Vol. CXXIX, No. 10, p. 248), referred to enlargement of the lingual tonsil as a cause of cough being but poorly understood by the general practitioner. The beginning of this condition is insidious, especially in young adults. Those of a sluggish or lymphatic temperament are more subject to it. If the cough lasts but a short time the general practitioner usually ascribes it to the stomach or some reflex cause. Possibly he may think of laryngeal inflammation, and the laryngeal mirror may reveal an enlarged tonsil. In children of from 2 to 3 years of age, a laryngeal cough without reasonable cause is usually due to pressure on an enlarged lingual tonsil. An irritative cough is often the only symptom of acute congestion of the lingual tonsil; there is little to be found on inspection. All the symptoms are worse at night. Impaired condition of the general health or the continuance of a catarrhal relaxation are predisposing causes. The trouble may be also due to anemia, constipation, habitually irregular habits as regards food and rest, as also overfeeding and indulgence in pastry in young children.—*L.*

Care of Ears in Early Life.—The Laryngoscope Preventive treatment in childhood has largely decreased the number of those incapacitated for following the ordinary pursuits of life on account of deafness. The close connection between the naso-pharynx, pharynx and tonsils and the tympanum is in early life a source of danger as well as the increased liability of contracting certain diseases, as measles, scarlatina, etc.

The starting point for missionary work on the part of physicians in preventing ear diseases in children is to "acquire a realizing sense of the full importance a perfect ear is to the individual," and that the crippling of his whole life may often result from catarrhal otitis. The care of the ear in early life means the care of the nasal passages and throat as well as the care of the ear itself.

Therapeutic Hints.

For Infantile Chorea.—

Arsenous acid..... $1\frac{1}{2}$ grains.
Distilled water.... 3 fluidounces. Mix.
Dose: From one-half to seven-teaspoonfuls daily.

—FILATOW.

Ointment for Hemorrhoids.—

R Chrysarobin, gr. 22.
Iodoform, gr. 9.
Ext. belladonna, gr. 18.
Vaseline, gr. 420.
M. Sig. Apply two or three times each day.—*Prac. Med.*

Amygdalitis.—

R Sodii benzoat., 3 j-iv.
Glycerini,
Elix. calisayæ, aa 3 j.
M. Sig. Teaspoonful every hour or two.—*Stevens N. Y. Poly.*

A Formula for Acute Gastroenteritis.—

Bismuth subnitrate, 4 drams.
Salol, 1 dram.
Camphorated tincture of opium, 3 fluidrams.
Tincture of ginger, 3 fluidrams.
Chalk-mixture, to make 3 fluidounces.
Mix. Two teaspoonfuls every three hours until the stools are formed; then one teaspoonful thrice daily.
—HERWIRSCH (*Phila. Polyclinic.*)

Severe Gastro-Intestinal Infections of Infancy.—

R Bihydrochlorate of quinine, 1 gm.
Asafetida, 1 gm.
Tinct. of musk, 1 gm.
Boiled water, 120 gm.
Yolk of one egg.
M. S. Use as an injection; this is sufficient for two or three injections.
—DR. FEDE, *Semaine Med.* September 28, 1898.

Irritable Bladder.—

R Benzoic acid, 1 drachm.
Borax, 4 scruples.
Sanmetto, 4 ounces.
M. Sig. Three tablespoonfuls a day to relieve frequent desire to urinate.

A Mouth Wash for Aphthæ in Children.—The ulcerations are to be touched four or five times per day with a brush rubbed in the following:

R Sodium biborate, 3 i.
Tinct. myrrhæ, 3 ii.
Blackberry syrup, 3 x.

To Anesthetize the Membrana Tympani.—

- R *Ac. carbolic* pur. }
 Menthol } aa gr. xv.
 Cocain hydrochlorat. }
 M. Sig. External use.

A small bit of absorbent cotton on a stylet is dipped in it and laid against the membrane, which is viewed through a speculum. A slight burning sensation is produced, but in two or three minutes the local anesthesia is complete, and an incision can be made painlessly. The mixture acts to some degree also as a caustic, as is evinced by a slight reddening of the membrane.

Trifacial Neuralgia and Migraine.—Apply, locally, a tampon moistened with the following : sulph. ether 50 gm., melissia alcohol 50 gm., menthol 20 gm. The pain vanishes with the refrigerating effect produced, and relief is experienced for hours.

Heat Aids Cocaine Anæsthesia.—If the solution of cocaine is warmed before using, on mucus surfaces its anæsthetic effect is more rapid, more intense and more lasting.—*Med Press.*

According to Radestock, the generally accepted dosage of potassium iodide in syphilis is rather too small. In one case he administered as much as 375 grains in one day, and has frequently given daily doses ranging from 150 to 225 grains. When well dissolved the salt becomes perfectly harmless for the stomach. In view of the high price of the salt, he thinks that iodine could be administered diluted in a syrup or wine. He recommends for this purpose Brown-Sequard's solution :

- R *Iodini*, gr. vi.
 Potass. iodidi, 3 ss.
 Aq. destil, 3 iss.
 M. Sig. A teaspoonfull three times a day in a glass of wine before meals.

Facial Erysipelas—

- R *Carbolic acid*, 1 ounce.
 Tinct. iodine, 1 ounce.
 Alcohol, 1 ounce.
 Oil turpentine, 2 ounces.
 Glycerine, 3 ounces.
 M. The lesions to be painted with this every two hours, and covered with aseptic gauze.—*Le Press Medicale.*

For Stomatitis from Smoking.—

- Salol*, 1 part.
Spirit of peppermint, 50 part.
Tincture of catechu, 2 parts. Mix.
 Dose : A teaspoonful in a glass of water, and to be used as a mouth-wash.

PRACTITIONER.

Goitre.—

R Iodini, (crystals) gr. i.
 Potassi iopidi, gr. ij.
 Alcoholia, 3 ij.
 Syr. simplicis, 3 i.
 Aquæ dest, 3 vi.

M. S. Take a teaspoonful in a half a glass of water four times daily.

About one-third of my cases during the past five years were treated with the thyroid extract, the others with iodine. The iodine treatment has given the quickest results.—DR. F. C. CHAFFER, *North American Practitioner*, October, 1898.

Nutrient Enema in Carcinoma of the Stomach.

Yolks of eggs, 2.
 Dried peptone, 1 to 5 drams.
 Wine, 4 fluidounces.
 Bouillon, 8 fluidounces. Mix.

For Chapped Hands.—

Menthol, 1 part.
 Salol, 2 parts.
 Olive-oil, 3 parts.
 Linolin, 80 parts. Mix.
 Apply twice daily.

—RITTERBAND.

Alterative—Four Chlorides.—

Arsenic chlorid, 1 grain.
 Ammonium chlorid, 2 drams.
 Tincture of iron chlorid, 4 fluidrams.
 Mercuric chlorid, 1½ grains.
 Syrup, 3 fluidounces.
 Water to make, 6 fluidounces. Mix.
 Dose: One teaspoonful thrice daily.

Salol given in powder for a long time may result in favoring calculi. Since it is but slowly decomposed in the intestinal canal, symptoms of obstruction may be obviated by combining other powders with the salol.

Serum-Therapy.—Serums have been prepared and used with varying success in the following bacterial disturbances of the physical equilibrium, clinically known as diphtheria, smallpox, tetanus, tuberculosis, streptococcic infections, typhoid fever, bubonic plague, rabies, cholera, yellow fever, pneumonia, antrax, syphilis, snake poisoning, ricin poisoning, typhus fever, and cancer.—A. L. Mann.

Reading Notices.

THE TREATMENT OF "LA GRIPPE" OR EPIDEMIC INFLUENZA, By J. A. Hofheimer, M. D., Late Attending Surgeon, Harlem Hospital Dispensary, New York City.

"La Grippe" is an infectious disease whose specific germ is a bacillus possessing the power of segmentation or subdivision, thus multiplying with great rapidity when a favorable medium is attacked. It is taken into the body from the atmosphere through the nose and mouth. Its action causes a congestion of the air passages (nose, throat and lungs,) similar to acute catarrhal conditions.

Many people take upon themselves the risk of dosing with phenacetine, antipyrin, antifibrin, etc. These drugs should only be used under competent medical advice, for cases of dangerous syncope have followed upon the careless partaking of these remedies.

Among the drugs practically harmless and at the same time efficacious can be mentioned quinine. This drug in small doses strengthens the heart's action and reduces the fever, besides acting as an internal antiseptic. As quinine in small doses alone will not relieve the pains or headache, nor entirely reduce the fever, I have been in the habit of combining with it Phenalgin as follows:

Quinine three (3) grains in capsules, Phenalgin five or ten (5 or 10) grains in powders at one dose, to be taken every three hours. This formula has proven very successful in aborting what might have been a severe attack of "La Grippe," and rapidly curing milder cases.

In common with many of the profession, it had been my habit prior to my acquaintance with the stimulant non-depressant character of Phenalgin, to prescribe alcoholic stimulants when giving the other coal tar products, to overcome their depressing effect. But the free use of alcohol is always followed by great depression and reaction. The contrary is true of the coal-tar product Phenalgin. The action of this drug is soothing and its anodyne effect is usually followed by refreshing sleep.

DOUCHE FOR NASAL CATARRH, OZENA, ETC. —R Antikamnia and Codeine Tablets, No xxiv. Sig.—Crush and dissolve six tablets in a pint of tepid water and use one third as a douche three times a day. Shake well before using.

A DESIRABLE ANTISEPTIC.—As a deodorant and antiseptic for the sick room and for the dentist's office, Listerine stands pre-eminent. While it is equal to any and superior to most of the agents commonly used under such circumstances, it adds an agreeable aroma instead of an offensive odor to the surroundings; and is particularly well adapted

to the lying-in room. It may be freely used in spray or lotion without stain or irritation as an agreeable and effectual detergent. It is also specially commendable in weak solution as a mouth-wash and gargle for aphthous sores or a fungus condition of the gums and bad breath; and for certain forms of indigestion—those accompanied by disagreeable eructations—a few drops of Listerine in water is a particularly grateful and excellent remedy. Moreover, according to a series of "Experiments upon the Strength of Antiseptics," by Dr. A. T. Cabot (*Boston Medical and Surgical Journal*), Listerine compares favorably with the most reliable agents for the rapid destruction of micro-organisms.—*The Sanitarian*.

WEAK HEART. I have been using CACTINA PILLETS for some time, and it has never disappointed me. One young lady from Montana; whose mother would not leave her one minute day or night on account of her weak heart's action. I ordered one hundred CACTINA PILLETS, and in one month she could run and play, and seemed to have no further trouble. I am using it almost daily in my practice.

CALVIN D. VILAS, M. D.

Lake City, Minn.

CONVALESCING FROM THE GRIPPE.—One of the most unpleasant features of gripe cases is the prolonged period of convalescence, sometimes extending over several months, during which the patient struggles to regain his former vigor. This struggle may be shortened by paying special attention to promoting the vitality of the tissues and improving the quality of the blood. During the recent gripe epidemic cases have been especially characterized by disturbances of the gastrointestinal tract, and after the patient has recovered from the immediate effects of the disease, he is often left in a dyspeptic state, rendering it very difficult to administer nourishing foods and tonics. It is under these circumstances that the physician finds ferro-somatose of great value, as it not only supplies to the tissues a large quantity of readily assimilated food, but at the same time the requisite amount of iron in such form that it will not tax the digestive functions, and will be readily converted into the iron containing principle of the blood. Being both a food and tonic, free from any disturbing action upon the digestive organs, as well as agreeable to the palate and capable of administration in a variety of fluids, ferro-somatose commends itself especially during the prolonged convalescence of gripe cases.

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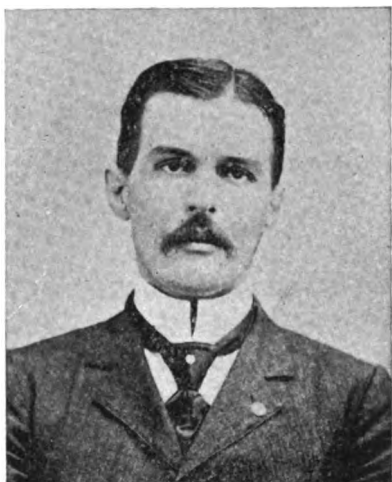
A Case of Complete and Partial Ophthalmoplegia of the Right Eye.*

BY CHARLES W. KOLLOCK, M. D., Charleston, S. C.

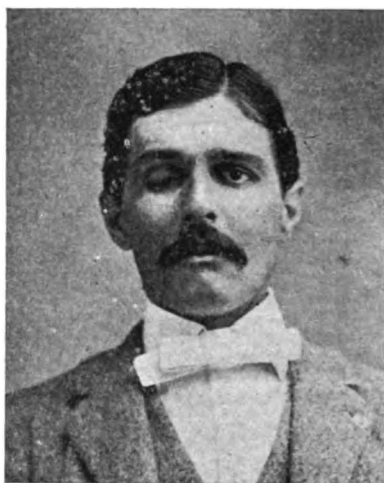
ON the 16th of January, 1896, Mr. W. consulted me about the condition of his right eye. The following history was elicited and is of considerable interest. The patient, a lawyer thirty six years of age, was married and wife and three children were living. The children are healthy. The wife had a miscarriage which was brought on by playing tennis. Patient had lost one brother from tuberculosis of the stomach and another from the same disease of the lungs, but his own health was generally good until 1890, when, while taking violent exercise, he had a hemorrhage, caused, his physician said, by the rupture of a small vessel in the throat. In the summer of 1884 he had a sore on his penis which was pronounced a chancroid by his physician and was treated by applications of caustic and calomel. No internal treatment was advised nor were there any signs of general infection. He was married in 1886; his wife is in perfect health and the children show no signs of hereditary disease. In the spring of 1891 the pupil of the right eye began to dilate and he consulted a physician who instilled a solution of eserine and prescribed glasses. In 1893 the left pupil began to dilate and became larger than the right, this condition continued for a year when the right pupil increased still further in size and the accommodation became paralyzed in that eye. About

*Read before the Tri-State Medical Society, Charlotte, N. C., January 18-20, 1899.

this time he began to be troubled by double vision. Early in 1895 he experienced difficulty in passing urine and this condition has increased so that the desire is never present and the urine is only voided after considerable straining. Coincident with this difficulty he noticed a numbness of the right side of the face which gradually increased until the mouth, nose, tongue and left side of the face were all affected in the same way and he could not taste food in the right side of the mouth. Speech was not affected but he was at times taken with choking or "gagging spells," which were distress-



No. 1.



No. 2.

Illustration No. 1 shows patient shortly after he came under my observation and No. 2 gives his appearance at the present time. In No. 1 by observing closely you can see a slight depression in the right temple.

ing and alarming to him and usually ended with eructations of wind. In the latter part of December 1895 the right upper lid began to droop and ptosis was soon complete. When seen by me a few weeks later there was absolute paralysis of every muscle supplied by the right oculo-motor nerve. Vision in both eyes was $\frac{15}{xxx}$. The refraction of the right eye was not corrected, but the left with + 1 cyl. ax. 150° , saw $\frac{1}{5}$. The ophthalmoscopic examination was negative so far as any pathologic changes were concerned. The temporal and masseter muscles of the right side were partially atrophied, the tongue was protruded straight, but when the mouth was opened the lower jaw was drawn to the right showing weakness of the right pterygoids. There was also slight numbness of the fingers and toes

which has gradually disappeared. He never suffered from headache, the urine was at times normal and there were no symptoms of heart or lung disease. Mercurial inunction (1 3 b. i. d.) and iodide of potassium (gr. x. t. i. d.) were prescribed. The former was kept up until there were signs of salivation, and the latter was gradually increased until eighty grains were taken three times a day when, on account of irritability of the stomach, it was discontinued and strychnine (sulph.) was given in ascending doses until the physiologic effects were produced. As there was no change in his condition after four months of treatment and as he had occasion to visit Baltimore he was advised to consult Doctors F. T. Miles and H. M. Thomas whose opinions, with that of Dr. Osler whom Dr. Thomas called in consultation, I shall now read.

(Letter of Dr. Miles.) "I have made a careful examination of Mr. W., whom you kindly referred to me. Besides the complete paralysis of the third nerve (I could not decide about the fourth) I find the fifth implicated. The motor fibers of the fifth are almost completely paralyzed, the temporal muscle and masseter atrophied, and no reaction in the pterygoids. The tongue while it is moved readily from side to side is altered in shape or position on the right side when he protrudes it. I am in doubt if there is not a slight weakening of the seventh. Sensation of parts supplied by the sensitive fibers of the fifth is obviously blunted, but the sensitive fibers are not so decidedly affected as the motor in this nerve. He can observe no difference in strength or sensation on the left side, although I should have expected that there would have been. I think there is a growth within the dura matter which is slowly extending, and after having involved the trunk of the third is invading the fifth. In spite of his specific history I am not inclined to consider it a gumma, but rather am inclined to suspect a tuberculous formation. I have advised him to see you again. I think the most appropriate remedy is (as you suggested) mercurial inunction. This on the chance of its being a gumma. If this does not succeed I think surgical interference would be the best thing. I spoke to Dr. Tiffany and he took the same view, viz: that it was in the range of surgical relief possibly. The operation would be pretty much the one so often successfully undertaken for removal of the Gasserian ganglion of the fifth."

(Letter of Dr. H. M. Thomas.) "At the request of your patient Mr. W., I write you the result of my examination and of the con-

sultation with Dr. Osler. Mr. W's. case seems to us one of very great interest, and of extreme rarity. The condition seems to be a slow degeneration of the nuclei of the III, IV and V nerves of the right side, with slight involvement of the left III, shown by the condition of the pupil in that eye. Syphilis seems the most probable cause. The outlook is grave and we must have in mind the possibility of the condition being an early stage of locomotor ataxia or general paresis. The slight involvement of the bladder points in this direction. As he has taken anti-syphilitic remedies lately, we think it would be wise for him to take strychnia hypodermically for five or six weeks. The nitrate of strychnia is the most satisfactory salt to use. The dose should be given once a day, beginning with a hundredth, rapidly increased to a fortieth of a grain. In connection with this, it might do good to give him arsenic, five minims of Fowler's solution three times a day. After Mr. W. has taken this treatment for six weeks or two months, I believe it would be wise to give him another course of iodide of potassium and mercurial inunctions. I have been extremely interested in this case and would esteem it a favor if you would let me know any new developments."

(Second letter from Dr. Miles.) "I still think the symptoms of Mr. W's. case most probably explained by an intracranial growth. This would also explain the passing trouble of the bladder by pressure on the cerebral peduncle. Besides, there is not only a degeneration of the *motor* nuclei (which we sometimes see) that of the fifth being included, but the *sensitive* fibers of the fifth are also involved, and we know that there is no sensitive nucleus of any nerve within the brain substance. It is certainly a very interesting case, and I shall be very much obliged to you for any future information as to its progress."

As the opinions of these gentlemen coincided in the main as to treatment it was decided to carry out that suggested by Dr. Thomas, but nearly three years have elapsed and no change has taken place in the patient's condition. In the meantime he has continued to attend to his practice of law, has taken part in one or two political campaigns and has been an active member of the South Carolina legislature. The last two undertakings were enough to paralyze any man. Since December, 1896, he has had no regular treatment, attends constantly to business, walks a mile and a half to and from his office, eats and sleeps well and weighs 155 lbs., which is an increase of 5 lbs. over his former weight. Doctors Miles and

Thomas do not agree as to the location of the growth or its character. Nuclear paralysis does not necessarily involve every muscle supplied by the third nerve while a growth pressing upon the trunk may do so, causing total paralysis. When the trunk of the fifth is involved not only are the motor and sensory fibers affected but neuro-paralytic ophthalmia frequently follows on account of the damage to the Gasserian ganglion. The eye generally escapes when the tumor is in the pons. Gowers mentions that semi-convulsive paroxysms of coughing sometimes occur in diseases of the pons which fact may account for the choking, or "gagging spells," from which the patient at one time suffered but from which he has been free for more than two years. Tubercular growths may occur at any age up to seventy, but are more common in early life, three-fourths occurring before the age of twenty, and one-half of all cases before ten years (Gowers.) In adults signs of phthisis are rarely absent when tubercular growths are present in the brain. Syphilitic growths are probably more frequent than reported as they are generally amenable to treatment, but of non-syphilitic growths tubercular and sarcomatous constitute four-fifths of intra-cranial growths. Tubercular growths are found most often in the cerebellum and next in the pons, while syphilomata occur generally in the cerebrum or pons, and rarely in the cerebellum and corpus striatum. Syphilitic growths occur usually in the cranium between the fifth and twelfth years after infection, though they may appear sooner. In this case there is a strong family history of tuberculosis but many important diagnostic symptoms are absent as there are no signs of this disease in any portion of the body. His health has improved, he has gained flesh, eats and sleeps well and has never been obliged to give up his work, but on the contrary, has been subjected to increased mental and physical strain by the political campaigns in which he has taken part and his duties as a member of the State legislature. A tumor that grows rapidly and then becomes stationary is likely to be tubercular, while a very gradual development is not likely to be due to syphilis (Gowers.) In this case the apparently slow development of symptoms does not necessarily exclude syphilis as he was put on specific treatment by Doctors Knapp and Koller, in New York, in 1891 or '92, which may have possibly delayed the progress of the disease.

DISCUSSION.

Dr. J. N. Upshur:

I simply want to express my great interest in Dr. Kollock's paper. It was interesting not simply from the standpoint of the specialist, but especially interesting to the neurologist and interesting to the general practitioner as well. We see a great many cases, where the cause is remote and where it is hard for us to arrive at any well defined conclusion in reference to it. The feature of the case which struck me very much was the fact of the apparent arrest in the disease and that the man was able to continuously perform his daily duties. I should apprehend that sometime there would be a sudden giving way of a blood vessel and the man might die suddenly from apoplexy. Dr. Kollock deserves the thanks of this Society and the profession for putting this case on record which should give rise to a great deal of earnest thought on our part.

Dr. John Dunn:

Dr. Kollock has unfolded the symptoms so well in his case that it leaves nothing to be said. The case has been told in such a complete report that to remark on it except that it is exceedingly interesting, leaves me nothing to say.

President Cobb:

Dr. Kollock, your valuable paper has fully covered the field.

Dr. Kollock:

You will notice that I haven't given a diagnosis. When gentlemen like Drs. Miles, Osler and Thomas differ, I don't think it is necessary for me to say very much as to that. I must admit this case was one which worried me. I was afraid somebody would ask me some questions I couldn't answer. It is a case more for the neurologists to discuss. It has been very interesting, because there is a distinct history of tuberculosis in the family, and as tubercular trouble frequently stops and does not grow after a certain time, and so may the other growth be stopped by treatment. I don't think he is ever going to improve any, but I think he will remain just as he is, for it has been nearly three years now since he had any trouble. I saw him about two weeks ago, and his condition is very much the same except perhaps his general health has improved a little.

Report of a Case of Appendicitis, Complicated With Intestinal Perforation.—Recovery.*

BY GEO. W. LONG, M. D.

MY reason for not attempting a discussion of the diagnosis, pathology and treatment of appendicitis is simply because I know I am not competent to pass upon it. Information gained however, from examining work already done by others that are competent authority, and my own limited experience, lead me to believe that it is possible for a general country surgeon, who is simple and clean in his surgical work and methods, who uses his own common sense and does not try to follow anybody's special method, to add greatly to the conservation of human life. To emphasize this thought, I will briefly give you some of the salient points of a case which recently came under my own observation. The patient was too poor to secure the services of an expert surgeon or to go to a hospital for treatment. Mrs. T. S., aged 19, colored, mother of two children, consulted Dr. George W. Kernodle, September 12th, 1898, complaining of slight fever and soreness over the abdomen, which the Doctor suspected might be the beginning of an attack of Typhoid Fever. Appropriate treatment caused patient to become much more comfortable, but never so much so as to permit her physician to feel that all was well. September 19th, 1898, the Doctor was called to find her aborting. October the 1st, she was moved in a wagon, on a bed, half a mile. October 7th, Doctor Kernodle called me in consultation. She presented a picture, coupled with the previous history, which pointed unmistakably to pus in the right side of the belly. We informed her and her friends that we thought she had Appendicitis and although the outlook was not promising, the thing to do was to open at once, the belly and liberate the pus. Accordingly, with the best aseptic precautions possible, under the circumstances, with our crude environments, under Squibb's Ether, a large quantity of foul pus was liberated by an incision several inches long, in the usual locality. At the time Doctor Kernodle suggested that the pus had a fecal odor. I have to regret that I failed to appreciate his valuable suggestion, as will appear later. Having made several ineffectual attempts to find the

*Read before the Tri-State Medical Society, Charlotte, N. C., January, 18-20, 1899.

appendix, we decided to make a counter opening in the lumbar region, improvise a drainage tube out of soft catheter, irrigate with warm saline solution, and pack with gauze. The patient reacted nicely; ordered light nutritious diet, absolute rest, dorsal decubitus. Doctor Kernodle resided near by and gave her all necessary attention for about a month, watching her general improvement, the posterior wound healing up all right, but the one in the abdomen only partially so. One month from the first operation I was recalled and in this consultation, we had also the valuable services of Doctor J. L. Kernodle. The discharges from the abdominal wound were decidedly fecal and Doctor Kernodle informed me that gas and ingested material had been escaping ever since my last visit. We decided to enlarge the opening and proceeded under ether, as before, commencing just below the border of the ribs, an incision was carried down to and below the McBurney point, opening up probably, a larger field than an expert would have required. We found a large opening in the lower portion of the ascending Colon with very necrotic ragged edges. The perforation in the bowel was so large that Doctor Kernodle easily carried a large sized sponge in his hand well up into the Colon. The appendix was finally found, though with considerable difficulty, ligated about one eighth of an inch from the coecum, with silk worm and cut off. Apparently it was perfectly normal and healthy. A longitudinal section of it, made at once, revealed two very small substances, possibly the size of hemp seed, which we supposed were enteroliths. The ragged edges of the rent in the bowel were trimmed with scissors, sutured with a common cambric needle, armed with silk worm, after Lembert's method—the peritoneal surfaces of the bowel being brought together. A warm saline irrigation, a gauze packing, over this, absorbent cotton, an abdominal bandage, to be changed as indicated, bowels to be bound, absolute rest, opiates if necessary, light nutritious diet, dorsal decubitus, constituted the treatment. The bowels acted by enema one week from the operation and have been moving satisfactorily ever since. The abdominal wound had about healed the latter part of December, which was the last time I saw the case. The cure seems to be all that could be desired. Patient able to walk about the house, though advised to resume customary work gradually. I was not surprised at finding the perforation in the bowel, especially when I recalled Doctor Kernodle's suggestion in the first operation but I was at a loss to know how such a fine

healthy looking appendix could be consistent with an Appendicitis, complicating intestinal perforation. Whether the removal of the appendix was right or not is still to me a *questio vexata*.

Graham, N. C., Jan. 13th, 1899.

Perforating Ulcer of the Duodenum—Operation—Recovery.*

By HUGH M. TAYLOR, M. D.

Professor of Practice of Surgery, University College of Medicine; Surgeon to Virginia Hospital, etc., Richmond, Va.

FORTUNATELY this is a rare disease. We say fortunately because its diagnosis is conceded to be very difficult, and in many instances impossible, and because, as is the case in many acute gastro-enteric lesions, life can only be saved by early surgical intervention.

It was my privilege recently to meet with a case in which not only were the difficulties in making a diagnosis impressed, but equally so was the imperative need of prompt operation illustrated. The intra-abdominal lesion was not, at first, diagnosed as one of duodenal perforation. Per contra, it was supposed to be a case of ruptured appendicial pus collection, with suppurative peritonitis. Prompt operation saved the life of an interesting young woman, otherwise doomed, and as far as our researches enable us to ascertain, permits us to put upon record the second case of perforating duodenal ulcer to recover after operation intervention.

We would not convey the impression, that our interest in this case is centered in the fact, if it be a fact, that this is the second recovery recorded. Our interest should be focussed in the lesson it teaches, that such cases can be saved by prompt surgery. As to the number of recorded recoveries it is due ourselves to state that we have not looked into the subject very exhaustively.

In the Twentieth Century Practice † the statement is made that sixteen cases of perforating duodenal ulcer have been operated upon within the last six years, but no report is made as to the number which recovered.

Greig Smith ‡ in his work on abdominal surgery, says, that at least one success is recorded.

*Read before the Tri-State Medical Society, Charlotte, N. C., Jan. 18-20, 1899.

†Volume VIII, page 473, 1898.

‡Volume II, page 785, 1898.

In the American System of Practical Medicine * by Loomis and Thompson, the statement is made that four cases have been operated upon—one with success.

The medical and surgical literature of perforating duodenal ulcer is strikingly meagre. As far as we have ascertained, its surgical interest seems only to have attracted the attention of Greig Smith. In such works as the American Text-Book of Surgery; Surgery by American Authors, Park; System of Surgery by Treves; Practice of Surgery by Wharton and Curtis; Wyeth's, Moullin's, and others, duodenal ulcer is only mentioned as a frequent complication of extensive burns.

Even a brief resume of all that has been recorded in the works on Practice of Medicine as to the etiology, special and differential diagnosis and medical treatment of duodenal ulcer, would be beyond the limits of this paper, and while in all of its phases it is interesting, we must limit ourselves to its diagnosis and surgical treatment.

It is a matter of common observation that while gastric and duodenal ulcer have much in common, there are notable and inexplicable clinical differences. Duodenal ulcer in the proportion of 16 to 2 occurs in adult men and not infrequently in robust men. It may occur at any age from infancy to senility. Gastric ulcer on the other hand is prone to occur in anemic young women. Let me remark in passing, that I have never been able to reconcile the occurrence of gastric ulcer in young women with the generally accepted theory that it is due to thrombosis or to some type of obliterating arteritis of a terminal artery. Degeneration of the blood vessels is not the rule in the young. No exciting cause for thrombosis commonly co-exists and in vegetative endocarditis, duodenal ulcer does not occur. On the other hand, in support of the theory of obliterating arteritis it is claimed that thrombosis and ulceration have been artificially produced. Whether this circumscribed molecular death is due to thrombus, to an arteritis obliterans, to a neuritis with trophic degeneration or is microbic in origin, must for the present remain an open question, and it is equally impossible to explain, why in some instances duodenal ulcer is attended, with marked local symptoms, and in others with no symptoms at all. Prior to rupture, the symptoms, if any are manifested, are easily and frequently confused with those incident to gastric ulcer, morbid changes about the pylorus, inflammatory conditions about the bile tract and with so-called gastralgia, neuralgia, etc.

*Volume III, page 193. 1898.

Notably by Loomis and Thompson in American System of Practical Medicine, the differentiation between gastric and duodenal ulcer is fully elucidated. It is claimed that duodenal ulcer is more frequent in men and is less frequently attended by hemorrhage or dyspeptic symptoms; that icterus is more common, that pain does not come on for three or four hours after the ingestion of food and what is of special interest to the surgeon that perforation and peritonitis is more frequently met with as a sequence of the duodenal ulcer. These writers fail, however, to differentiate between the symptoms of duodenal ulcer and those incident to bile tract troubles, cancer of pylorus, pancreas, etc., and we think they are much more emphatic in their conclusions than would be expressed by surgical clinicians experienced in diagnosing obscurely defined intra abdominal lesions. Greig Smith emphasizes this point and claims that the disease "is usually as regards symptoms, latent, or produces evidences of its existence so vague and uncertain that diagnosis of duodenal ulcer is rarely made."

As in other intra-abdominal lesions exceptionally classical symptoms may clearly define a typical case. The leading symptoms i. e. vomiting and pain some hours after meals, occasional hemorrhage or malaena and local pains and tenderness are equally common symptoms of so many other morbid conditions. Even in perforation the cases are as a rule atypical with confusing and misleading symptoms.

The case we recently treated illustrates this last conclusion. The patient, a young school girl, aet. about 17 years, while not robust, had always enjoyed fairly good health. About one week before the perforation occurred she began to experience some intra abdominal pain but does not recall that it was focussed in any one special spot or that it was made worse by eating, exercise or anything she did. It was, however, sufficiently severe to prompt her to see her physician several times and she was told by him that he feared it might be incipient inflammation of the appendix. There was no vomiting of either food or blood, no bloody stools. She had rarely in her life suffered from indigestion and this obscure pain had existed only a week. I was requested to see the case in consultation at two o'clock at night. At that time she was profoundly collapsed from a supposed ruptured appendicial pus collection. The evening before she had been on the street, and after eating a hearty supper, walked with some friends six or eight blocks to a depot.

On her way back she walked very rapidly and just as she reached home she was taken with violent pain, etc. I have dwelt upon the history of this case because it sustains the conclusion that duodenal ulcer may exist with minor local symptoms prior to rupture and very confusing symptoms after rupture. Perforation of the duodenum evidently occurred several days before the night of the acute symptoms and a circumscribed pus collection was walled in by adhesion of the transverse colon to the duodenum at the point of perforation. This was subsequently revealed by a large patch of lymph on the duodenum with a corresponding patch on the transverse colon. Perforation and local infection and the formation of a circumscribed abscess evidently occurred while the patient was up and about and this abscess and local peritonitis was not attended with sufficiently severe symptoms to cause either very much suffering or anxiety and certainly they were not such as would foreshadow the impending danger. When this abscess bursts into the peritoneal cavity the symptoms rapidly became extremely acute. The rapid pulse, subnormal temperature, pinched features, vomiting and rigid abdominal muscles presented a clear clinical picture of intra abdominal infection. But there were no guiding symptoms indicative of the source of the infection. The same acute symptoms are common to infection from the appendix, ileus, peptic, typhoid, tubercular perforations, etc. Granting that the pain was above the umbilicus, time and again we have seen the pain of acute ileus or appendicitis focused above the umbilicus, and very recently we saw a case in consultation in which there was no abdominal pain, no muscular rigidity, the abdominal walls could be pressed without pain back to the spinal columns. There was, however, short pleuritic like pain under the right breast. There was a history of appendicitis and a section revealed a gangrenous appendix.

If we recall the distribution of the great sympathetic ganglion to the abdominal viscera, we will be reminded of the fact that pain from almost any part of the intestinal tract, will commonly be referred to a point about or even above the umbilicus in the region of the superior mesenteric plexus.

The great desideratum in this as in many intra-abdominal troubles, does not seem to be an improved operative technique, but rather greater proficiency in diagnosis.

The surgeon's interest in the treatment of duodenal ulcer begins, possibly when by medication and dietetics, the case is found to be

incurable, possibly, when profuse or prolonged hemorrhage endangers life through acute or chronic anæmia, and certainly, when perforation and local or general infection occurs. This infection should be classed with that incident to appendicitis, to bullet wounds of the bowel, to typhoid perforation, etc. In each instance we have infection from intestines in which pathological conditions give active pyogenic properties to its ptomain factors. In general peritoneal infection from appendicitis, from perforation in connection with cholangitis of cholecystitis, or gastric or typhoid ulcer and in bullet wounds of the hollow viscera preventive surgery is ideal. The key to success is an early operation to prevent rather than the almost forlorn task of trying to cure diffuse suppurative or septic peritonitis. Perforating duodenal ulcer is as logically within the province of justifiable surgery as any of the morbid conditions above mentioned and certainly if correctly interpreted the symptoms present a clinical picture, clearly noting, from some source, a general peritoneal infection. It is uniformly fatal to wait for the typical manifestations of general infection. Appreciating this truism, Dr. Nuckolls as soon as he saw the patient asked for consultation and advised her removal to the Virginia Hospital. There was a delay of four or five hours incident to removing the patient to the Hospital and in trying to re-act her by means of saline infusion, strychnia, morphine, and the usual remedies called for in profound shock. It was ten o'clock—twelve hours from the beginning of the acute symptoms—when the operation was begun. In that time, general suppurative peritonitis was fully developed. Assisted by Drs. Edward McGuire, Virginius Harrison, and Marvin Nuckolls, the usual section for appendicitis was made. In incising the peritoneum, gas and pus poured out of the general peritoneal sac. The appendix was quickly delivered and much to our surprise, was found not involved in the least. Thinking the focus was in the uterine adnexia, the incision was enlarged downward, and an examination of the pelvis was also negative in its results except to disclose much puddling of sero-purulent fluid. Having eliminated the two most common sites of infection, and as there were no evidences of strangulated ileus, we turned our attention to the bile tract. To expose this site, our incision had to be extended well up to the 9th costal cartilage. This long incision and extensive exposure of the abdominal contents enabled us to note that the intestines—notably the transverse colon—were covered in many places with the com-

monly observed diphtheretic like lymph deposit. There was also more injection of all the structures and the presence of a considerable quantity of greenish looking fluid was also noted. The bile tract when fully exposed was also found intact and not the focus of trouble. Very quickly however, we found the duodenal perforation. It was situated on the anterior surface of the third portion of the duodenum, about midway between its free border and mesenteric attachment, and from it the duodenal contents were freely escaping. The perforation had the characteristic punched out appearance and was not larger than the lumen of a goose quill. For an inch or more around the perforation the duodenal wall was thick, indurated, and inelastic and covered with a layer of yellow grayish lymph.

There was nothing unique in the technique of the operation. The infected lymph was carefully peeled off from around the perforation and an effort was made to invert the ulcer by means of interrupted silk sutures. This was found impracticable, the thick duodenal wall and friable tissue were the difficulty. A purse string buried deep in the thickened wall was made to encircle the perforation and when tied this effectually closed the opening. With silk sutures the ugly looking adjacent peritoneal tissue was brought over the purse string and perforation.

The further technique consisted in carefully wiping away with gauze sponges the lymph deposit wherever found. Next the viscera and abdominal cavity were subjected to prolonged irrigation with hot saline solution and finally the abdomen was riddled with gauze drainage.

Convalescence was slow, a consequence of imperfect drainage and infection of the abdominal incision. For the first three or four days a great deal of bloody serum was drained off, this gradually lessened in quantity and in five or six days the patient was anesthetised and all the drains except that one which was in contact with the sutured perforation were removed. Puddling of pus was found to have occurred along or behind several of the strips and a discharge of pus from these infected tracts lasted for several weeks. The ultimate outcome was a satisfactory convalescence and the patient when discharged, presented a better condition than is the lot of many who recover from a celiotomy of less serious proportions.

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Editorial.

AMENDMENT TO THE MEDICAL PRACTICE ACT.

Physicians are usually suspicious of any interference with the laws governing the practice of medicine in the different States, but the present bill before the Legislature of North Carolina will commend itself to the profession at large.

Through the kindness of one of our representatives in the House, and also from Dr. Lewis, of Raleigh, the Chairman of the Committee on Legislation, appointed by the State Medical Society we have before us a copy of the proposed amendment to the present law. For the information of those of our readers who have not seen this bill, entitled S. B., No. 281, we give here an exact copy:

AN ACT TO AMEND CHAPTER THIRTY-FOUR OF THE CODE, AND
CHAPTER ONE HUNDRED AND EIGHTY-ONE OF THE LAWS
OF 1889.

The General Assembly of North Carolina do enact:

SECTION 1. That chapter thirty-four of The Code be amended by inserting after the word "applicants" in line two of section three thousand one hundred and twenty-four, the following words: "who

shall exhibit a diploma, or furnish satisfactory proof of graduation, from a medical college in good standing requiring an attendance of not less than three years and supplying such facilities for clinical instruction as shall meet the approval of the said Board," and by adding immediately after said section three thousand one hundred and twenty-four the following words: "*Provided*, that the requirement of three years' attendance shall not apply to those graduating prior to January first, 1900. *Provided further*, that license or other satisfactory evidence of standing as a legal practitioner in another State shall be accepted in lieu of a diploma and entitle to examination."

SEC. 2. That section three thousand one hundred and twenty-five of The Code be amended by inserting after the word "applicant" in line three, the following words: "who shall comply with the requirements as to graduation prescribed in section three thousand one hundred and twenty-four as amended."

SEC. 3. That section three thousand one hundred and twenty-seven of The Code be amended by adding immediately after said section the following words: "*Provided*, That the said Board may, in its discretion, meet not more than one week before the said society, but always in the same place; and that one additional meeting in each year may be held at some suitable point in the State if deemed advisable."

SEC. 4. That chapter one hundred and eighty-one of the Laws of 1889 be amended by striking out all of section three from the word "words" in line four, down to the word "any" in line nine, the word "likewise" in line eleven and the word "such" in line fourteen; by striking out in section four all from the word "or" in line three to the number "1885" in line six, inclusive, and the words "on oath" in line seven; and by striking out in section seven all after the word "act" in line three.

SEC. 5. That this act shall be in force from and after January first, 1900.

From the above, it will be seen that the changes proposed will be for the betterment of our present law in all respects. The fact that only graduates are entitled to be examined by the State Board, can hardly be objected to by any one, and the additional fact that the bill, if passed, does not go into effect until 1900, will work a hardship upon no one. Other and less important changes will be obvious on reading the Act upon which want of space will not allow comment.

DISSECTION LAW.

Any one who was familiar with public sentiment during the last campaign naturally expected the Legislature to amend the law relating to the distribution of dead bodies for dissecting purposes to the medical schools of the State.

During the early part of the session the whole law was repealed and the judiciary committee now has under consideration the preparation of a bill that is expected to leave out all objectionable features. It is to be earnestly hoped that a suitable bill will be framed and passed by the Legislature. So far as we are informed the only objection urged against the old law was that it made no exceptions in case of the dead at the State Hospitals for the insane. Without discussing the wisdom of including them in the provisions of the original law, it is certainly true that material from other sources can and should be turned over to the medical schools without reasonable objection from any quarter.

Other States have liberal laws of this kind and North Carolina should not be behind them in encouraging this necessary part of a medical education and in fostering home institutions. A law giving our Medical Colleges the unclaimed bodies of State and county convicts and criminals executed, would be a reasonable measure and one that ought to meet the approval of all public-spirited men.

AN ATTACK ON BACTERIOLOGICAL INVESTIGATION.—The *Gazette medicale de Paris* for November 12th recounts that, as it had foreseen, an attempt has been made in the Austrian legislature to suppress bacteriological laboratories, but the Minister of Public Instruction and the chief of the sanitary department have protested against such suppression in the interest of civilization, maintaining that all that is needed is greater care in the management of the laboratories. The attempt to suppress them is quite on a par with English and American antivivisection legislation. We presume the exciting cause of it was the recent unfortunate occurrence of the plague in Vienna as the result of laboratory work.—*New York Medical Journal*.

News and Items.

A Bill for the prevention of the adulteration of food has been introduced in the legislature of this State. We trust some effective measure may be decided upon, and that an amendment controlling the sale of poisons may be adopted.

The January Number of the American Journal of Surgery and Gynecology is truly a "Woman's Number." Its pages are replete with interesting and able papers and editorials all written by women doctors. It is worth reading.

In Germany, the government is establishing sanatoria in all parts of the empire for the treatment of diseases of the lungs.

According to a Correspondent of the Medical Record—A certain medical society in London reserves a number of meetings each year for the reporting of errors in diagnosis and practice.

Among the Recent Deaths reported in the profession are Dr. J. T. Jennings, Bennettsville, S. C., who died Jan'y. 22nd, age 58.; Dr. Thomas Gibson, of Va.

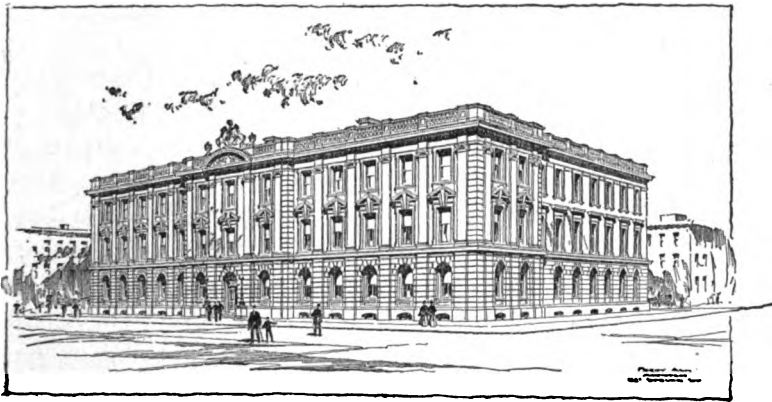
Bear This in Mind.—If you are about to examine a septic case or one where you suspect syphilis, wash your hands in vinegar or dilute acetic acid, and you will soon discover by the smarting any little scratches or abrasions in your skin which might become the starting points of infection.

A Little Trick in Needle Threading.—The following little manipulation is easy of execution, useful, and practical, and will save both temper and nerves, says Dr. J. M. Jackson (*Phila. Med. Jour.*) Let the needle (straight, curved or cervix) be held with the ring and little fingers of the left hand, instead of with the thumb and the forefinger as usual, leaving the latter free to grasp the smallest bit of silk, etc., introduced through the eye, and pull it through. By the old method, when the silk was introduced into the eye and the needle changed from the left hand to the right, it invariably slipped.—*Med. Rev.*

Conservative Treatment of Wounded Hand.—The main point is to cleanse the hand thoroughly, best accomplished with alcohol and ether, followed with copious irrigation with a stream of hot water, at 50 to 55 degrees C., which has the threefold advantage of being hemostatic, aseptic and warming, thus counteracting the cold-

ness that follows the traumatic shock. It may be necessary to use an anesthetic to make the cleansing as perfect as necessary. Once completed, the wound is dressed with iodoform, or simply sterile gauze, and left untouched for four days, with the hand and forearm immobilized. A wound thus treated heals without a trace of suppuration.—Martin: *Jour. des Pract.*, No. 30.

Raleigh Academy of Medicine.—The following officers have been elected for the ensuing year: President, Dr. James McKee; Vice-President, Dr. R. S. McGeachy; Secretary, Dr. H. A. Royster, re-elected; Treasurer, Dr. A. W. Goodwin, re-elected.



New Medical Laboratories at the University of Pennsylvania.

There has been a great deal of agitation in the past about Higher Medical Education, and the theme may seem to have been worn threadbare. With the establishment of the Compulsory Four Years Course of Study the ends of the agitators were for a time achieved, and the Higher Medical Education sought after in the past was attained. More years and longer terms of study, with increased practical instruction, completed and rounded out the medical curriculum. To attain this end an additional year of study was urgently necessary, and new clinical facilities had to be established; in short, provision was required to give the student more ample practical experience than had been possible before.

But the world moves swiftly, and another Higher Medical Education has made its appearance. It is true that with the present provisions the University offers a course of study complete in its details, covering the required branches, and covering them far bet

ter than ever before, but the foundation of the structure is too narrow, the building is too high for the breadth of base, and the equilibrium is uncertain. The needs of the present time are: more thorough training of the student in the fundamental branches, a greater devotion to laboratory work, and a weeding out of much of the old-fashioned didactic teaching. The hand writing is plainly written on the wall: the laboratory in the future shall be the medium of education, and institutions shall be judged by their laboratory equipment. There was a time, unfortunately not so many years ago, when medical schools in this country graduated Doctors of Medicine whose whole teachings had been theoretical, on account of the lack of hospital facilities. In those days the stamp by which a medical school could best be measured was the kind and amount of hospital facilities it offered the student. While the importance of hospital training and bed-side instruction is as great as ever, a change of ground has taken place, and laboratory training has become more and more necessary. It is no longer the crucial question whether a certain school offers its students practical instruction, as well as didactic lectures; the decisive test is rather, whether laboratory training is commensurate with the other forms of teaching. It is impossible to teach Chemistry in didactic lectures, or even by class demonstration. It is equally impossible to teach Anatomy, Pathology, Histology, or Physiology by didactic lectures, or demonstrations to large classes of students. Individual work is as absolutely essential in these branches at the present time as it has been in the case of Chemistry for many years. The scientific physician of to-day recognizes the all-importance of laboratory study of his case, and will naturally send his students to that institution which offers the most thorough preparation in these branches.

It must not be thought that the University has been entirely remiss. The growing necessity of this form of instruction has been recognized and temporary provision has been made. The Physiological Laboratory has for several years been conducted upon the principle that each student should receive individual instruction in practical work, using instruments of precision at least sufficiently to attain some command of this sort of work. In Histology, in Pathology, and in Experimental Therapeutics, the Laboratory facilities have been sufficient up to recent years, while in Bacteriology the ample equipment of the Department of Hygiene has been called in requisition. The continued growth of the classes, however, and the

increasing importance of laboratory instruction, make a departure absolutely imperative, and a new laboratory building will have to be provided in the very near future.

The Alumni will recognize this need, and will undoubtedly endorse its immediate consideration with unanimous vote. The Provost, with characteristic energy, has undertaken the task of securing the means necessary to build and equip new laboratories; and naturally as in the case of the Law School, turns at once to the Alumni of the Department. Every alumnus of the Medical School should be reached, and every loyal alumnus will undoubtedly give some amount to this fund. The cost of the building and equipment will be very great; no less than \$300,000 will be required for the building and preliminary equipments; and it is urgently hoped that a large part of this fund will be secured by contributions from the Alumni. Already the Provost has assurances of liberal contributions from Alumni in Philadelphia, and from others, living in remote sections of the country, whose interest in the Alma Mater has not been diminished by their distance from Philadelphia; and wherever an alumnus may be, the mere mention of this project should be received by him as an urgent appeal.

The accompanying plans will illustrate far better than words the character and scope of the proposed undertaking. The building has three floors, devoted to Physiology, Pharmacology and Pathology respectively. The main part of the laboratory building is 192 feet in length, and there are wings running back at each end 128 feet. Large student-laboratories are placed in the wings, while the front of the main building is divided into a number of special research-rooms, offices, and work-rooms of various sorts. To the rear of the centre of the main building there is on each floor a special demonstration-room, a lecture-room arranged in the form of an amphitheatre. The animal house is a special building two stories high, and situated at the open side of the hollow square formed by the main building and the two wings.

FOR HEMICRANIA.—Robin (*Riforma medica*) recommends :

- | | | | |
|---|--|---|-----------------|
| R | Antipyrine..... | } | each 7½ grains; |
| | Bromide of Potassium..... | | |
| | Hydrochloride of cocaine..... | | 1½ grain ; |
| | Caffeine..... | | 1½ grain ; |
| | Powdered <i>Paullinia sorbilis</i> | | 4½ grains. |
- M. For one powder. Take one powder at the end of the first crisis.

Book Reviews.

The Principles and Practice of Medicine.—Designed for the use of practitioners and students of medicine. By William Osler, M. D., Fellow of the Royal Society; Fellow of the Royal College of Physicians, London; Professor of Medicine in Johns Hopkins University and Physician in Chief to the Johns Hopkins Hospital, Baltimore, etc. Third edition. In one royal octavo volume of eleven hundred and eighty pages. D. Appleton & Company, New York, 1898.

As the author says in his preface, at the present rate of progress in all departments, a text-book six years old needs a thorough revision. We have even heard it said that in these days a medical book ten years old is hardly worth shelf-room. This, of course, was simply an emphatic way of noticing the rapid advance in all branches of medicine. The second edition of Osler's Practice, published three years ago contained many corrections and much new matter, but the present edition has been entirely rewritten. It is printed from new type, the pages are somewhat larger and the quality of the paper better.

Dr. Osler has not changed his views in regard to typhoid fever since the previous edition of his text-book, unless he has become a little more extreme in regard to the avoidance of all drugs in its treatment. He says "a great majority of my cases do not receive a dose." He thinks that the best that can be said of antiseptics is that generally they do no harm. He takes no stock in Thistle's method of eliminative and antiseptic treatment, and considers unnecessary even the preliminary calomel purge, so much used. While there is, to our mind far too much drugging in typhoid fever, and in nearly all diseases, for that matter, we cannot accept the author's extreme views *in toto*. His rate of recoveries, however, is a very forceable argument in his favor.

Dr. Osler is recognized as one of the foremost physicians of the age, and his text-book has met with such a reception at the hands of practitioners and medical colleges as its merits and the author's reputation deserve. The present volume is well in accord with the most recent advances in medicine, and bears throughout evidences of the author's wide experience. While the views of others are not ignored, the work is conspicuously illustrative of the results of the author's personal observation of diseases and their treatment.

The Sexual Instinct.—Its Use and Dangers as affecting Heredity and Morals. Essentials to the welfare of the individual and the future of the race. By James Foster Scott, B. A., M. D., C. M.; late Obstetrician to Columbia Hospital for Women and Lying-In Asylum, Washington, D. C.; late Vice-President of the Medical Association of the District of Columbia, etc., etc. Octavo pages 434; price cloth \$2 00. E. B. Treat & Co., New York, 1898.

The author says in the preface that this book contains much plain talking, and it is true; but it is thoroughly free from indecency and is

an honest effort on the part of the author to so teach the laity in regard to this most important of all their functions that the health and morals of the race will be improved. He seeks to impress upon physicians the duty of instructing the youth of the land in these matters, and not leave them to gain wrong ideas from the conversation of their associates. The subject is a very delicate one to handle in print, but the author has succeeded about as well as could be expected.

A Primer of Psychology and Mental Disease for use in Training Schools for Attendants and Nurses and in Medical Classes.—By C. B. Burr, M. D., Medical Director of Oak Grove Hospital for Nervous and Mental Diseases, Flint, Mich.; formerly Medical Superintendent of the Eastern Michigan Asylum, etc. Second edition, thoroughly revised. The F. A. Davis Company, Philadelphia, 1898.

This little volume of one hundred and sixteen pages is divided in four parts: First, Psychology; second, Insanity; third, Management Cases of Insanity; and fourth, Suggestions as to what to do and what to avoid in Caring for the Insane. The work is intended for the instruction of those who are acting as attendants in institutions for the care of insane persons.

Practical Uroanalysis and Urinary Diagnosis.—A Manual for the Use of Physicians, Surgeons and Students. By Charles W. Purdy, M. D., LL.D., (Queen's University); Fellow of the Royal College of Physicians and Surgeons, Kingston; Professor of Clinical Medicine at the Chicago Post-Graduate Medical School. Author of "Bright's Disease and Allied Affections of the Kidneys;" also of "Diabetes: Its Causes, Symptoms and Treatment." Fourth revised edition. With Numerous Illustrations, including Photo-Engravings and Colored Plates. In one Crown Octavo Volume, 365 pages, bound in Extra Cloth, \$2.50 net. The F. A. Davis Co., Publishers, Philadelphia, 1898.

We have before spoken with unstinted praise of this work, which is the best of its kind that has come to our notice. Its great popularity is attested by the fact that three large editions have been exhausted within three years, and that upwards of sixty medical colleges have adopted it as a text-book. In the present volume there have been introduced some improvements, though there was little needed, and the work has been brought up to date. Some less modern and absolute methods have been given less space, or omitted entirely. The work should be in the hands of every practitioner of medicine. The illustrations are good and the mechanical work well executed.

Acute Bronchitis.—

- R. Ammonium chloride, ʒ 2.
Ammonium iodidi, gr. 4.
Comp. syrup of squill, ʒ 6.
Syrup of wild cherry, q. s. ad ʒ 3.
- M. S. Teaspoonful every three hours.

Review of Medical and Surgical Progress.

New Method of Disinfection.—According to the Sanitary Record, a mixture of formaldehyde and glycerin is sprayed into a room to be disinfected, until a thick fog results. For 1,000 cubic feet, about four pounds of the mixture is needed. Three hours exposure was found sufficient to kill all germs in the room experimented on, though the test objects were purposely chosen of the most refractory nature. The advantage of adding glycerin to formaldehyde is due to the hygroscopic character and its power of penetrating and adhering.

The Harris Instrument for Diagnosis of Renal Disease.—Thomas, in the *Medical Sentinel* calls attention to the superiority of this instrument for determining which kidney is affected, and whether there be a second kidney. He briefly describes the instrument as follows: It consists of two curved catheters fastened together, being introduced with the curve up, which, when within the bladder, are turned down, making a complete fork; then a blade is passed into the vagina of a female or rectum of a male, which presses up between the forks making, as it were, a water-shed of the middle of the posterior wall of the bladder, allowing the urine to flow from either side into the two pockets in the bladder thus made, into which each catheter point projects. Then by arrangement of a suction bulb, the urine is drawn into separate bottles as fast as it flows from the kidneys. The time required for getting sufficient urine for diagnosis depends upon the quantity of urine desired and the rapidity of the action of the kidneys. Usually twenty to thirty minutes will suffice, and the examination can be made at any place without special preparation. He has not, so far, found it necessary to use local anesthesia, but it could, if necessary, be used, even with general anesthesia. It is superior to the Kelly method in requiring no anesthesia, in being easy of application, and in requiring no dilatation of the urethra, which sometimes causes paralysis, of the sphincter, with subsequent dribbling of the urine. He recites four cases in which the instrument was used, and in which subsequent operation verified the findings with the instrument.

Modified Inoculation Vs. Vaccination.—At the Nashville meeting of United Confederate Veterans, Dr. C. H. Tebault submitted a

report on the subject of modified inoculation which is reproduced in full in *Gaillard's Medical Journal*. This method for the prevention of smallpox was tested by the author in a very grave emergency during the civil war. An exchange of prisoners had been effected between Generals Beauregard and Halleck. It transpired that the two hundred prisoners received by General Beauregard were, with the exception of six or seven, in all stages of smallpox. One of these prisoners stated to the author that they constituted the remnant of about eight hundred prisoners that had been captured at Pea Ridge, Arkansas, all the others having died of smallpox at Alton, Illinois. These prisoners were placed upon Hatchie Island and Dr. Tebault assigned to care for them. No vaccine was within reach. He recalled the fact that the true Jennerian virus was that derived from the cow while yielding milk, and after the cow had been inoculated with the grease taken from the horse, and he had also noticed that without an exception it was seemingly impossible to successfully inoculate a child fed exclusively upon good, pure cow's milk. He therefore conceived the idea of using the smallpox lymph, diluted with fresh, warm cow's milk as a protective agent in the case of himself and those not already infected. The experiment proved a valuable one, for the dreaded malady was instantly arrested. The few who had escaped the smallpox responded promptly to the modified inoculation running the same regular course observed in vaccination, and presenting all the phases of that well-known operation. The smallpox did not spread to the garrison and was effectually arrested with these exchanged prisoners.

The author concludes his report with the following claims for modified inoculation:

1. Simultaneously with the presence of smallpox, we have offered us the means for arresting the disease in its first appearance by effectually limiting it to the first cases presenting.
2. No doubt could exist with respect to its strength or freshness, for the physician can thus escape the intermediary, and estimate, in his own knowledge, its freshness in exact minutes and hours.
3. Should a father enter his own home attacked by smallpox, every member of his family could be protected through him, and no questioning would be necessary, in employing the virus for modified inoculation taken from himself, for the protection of his own family.

4. Modified inoculation protects more rapidly than the best possible vaccine virus and more certainly, for the author, and every practitioner of medicine of ripe experience and who has seen much of smallpox, knows that smallpox has repeatedly overtaken vaccination two weeks after its successful insertion, and even later, while in the author's experience, modified inoculation has arrested smallpox already in the pustular stage.

5. Modified inoculation would make it unnecessary to provide for compulsory vaccinations, when no physician employing the humanized, or the bovin virus, can vouch, personally, for its freshness or its purity.

6. To-day every physician depends for his virus, upon vaccine farms run for the profit of their owners, and he is compelled to rely upon these propagators and their assistants, residing in distant localities, for the reliability, the honesty and the purity of their products, whereas, in modified inoculation, he can provide his own material, and can calculate from his own information, to a minute, with regard to its freshness, and also in the matter of its purity.

7. Modified inoculation can be made stronger or weaker, to meet any required case or emergency; stronger, for example, in cases prudently needing a second or third protection, if an emergency should suggest repetitions.

8. One or two modified inoculations would answer for a lifetime, whereas, one-third of the re-vaccinated will make a response, if vaccinated with reliable virus every third year.

9. A vaccinated patient will actively respond to modified inoculation in a year, and even a smallpox patient, after recovery, will slightly, or positively, respond to modified inoculation, in the second, and even the first year.

10. To practice modified inoculation, it is simply necessary to obtain the smallpox lymph in the vesicular stage only, and admix the same thoroughly with from three to six drops of fresh, warm cow's milk, and proceed to operate precisely as for vaccination. Modified inoculation, thus practiced, is not communicated by contact or contagion.

Mistakes of the Small Towns.—By Harvey B. Bashore, M. D. Agitation about drinking water has reached the small towns, and almost all are seeking for a new supply to supplant the old well.

Somehow or other people have gotten the idea that spring water, no matter where it comes from, is the thing to be desired, and if the

spring has a source high enough to permit the use of the water by gravity without costly pumping works, it is considered an ideal supply. So a few of the prominent citizens of the town get together, buy land, lay pipes and before long claim to have a pure mountain spring water—the best in the land.

Now the fact is that spring water, because it is spring water, is no better, not even as good, as some other waters; just this day I made a chlorine examination of a sample of Croton water and a sample of spring water from some Pennsylvania hills, and the result was considerably in favor of Croton water. A spring is even no better than a well, except that it is very often situated in an uncultivated upland; if it is in a town or surrounded by dwellings, it is often worse than a well on account of being so readily polluted by surface washings.

Another point worth remembering is that these towns, when they have procured a water supply presumably pure, expect it to look out for itself, and here they make a fatal mistake; for to keep water pure which is in any way near human habitation needs human vigilance. There is a small town near Harrisburg, Pa., which recently tapped a fine spring in the Blue Mountains. Originally it was a pure supply, but the town which uses the water exercises no care over the gathering-grounds, and as a result cows from a neighboring pasture wallow in the spring. Of course, this does not likely breed disease, but it demonstrates at least that this community is not getting as pure water as it imagines.

Then, again, another difficulty arises before long in these towns. Some of the richer citizens think they ought to have water-closets and bathtubs, and soon a plumber is obtained. What to do with the sewage—for sewage it will be—never troubles the householder. He will run it into the sewer, as one once told me, forgetting that there are no sewers, or that sewers must have an outlet; but the wise plumber has been in such places before and helps him out of the difficulty by running the soil pipe into the old privy, and he tells him if the privy gets full he can have it emptied. In the majority of cases it never will get filled, for the simple reason that most of the water will leak into the surrounding soil.

This might not be so bad if only Jones or Smith had water-closets; but other citizens do the same, and following the example of the hardy innovators, turn their privies into cesspools. Now, as time passes, there are cesspools everywhere, and as they all leak, the ground water becomes poisoned.

Water pipes, too, always leak, and whenever the pressure from without becomes greater than that in the pipes—which it must frequently do—filthy soil water passes into the pipes, the town water supply becomes polluted, and eventually typhoid breaks out.

As time passes the town increases in size, while still retaining its primitive sanitary appliances; consequently, we are treated to the sight of towns of six or ten thousand inhabitants using cesspools. Now and then the town becomes a great city, as in the case of Baltimore, which is all but a cesspool city, and we wonder why its typhoid death rate is almost 5 per 10,000.

Sooner or later all cesspool towns will travel the same road—all will end in an epidemic and then the cesspools will give place to sewers, but the damage will have been done, many lives lost and much sickness endured, all because we want to patch mediaeval shiftlessness onto nineteenth century progress.—*Harvey B. Bashore in The Sanitarian.*

Mercenary Antitoxin.—*The Medical News*, in a recent editorial shows up Dr. Behring's true spirit in securing a patent for diphtheria antitoxin, by enumerating the fairly lucrative appointments with which he has been favored, and then goes on to remark:

"To pretend that a man situated like this *needs* to violate all the principles which so far the profession has kept sacred is carrying the plea to too great length. It is plain that it is the money-making side of the question alone that has influenced the medical scientist to depart from a consecrated usage to ask for exclusive rights in the sale of his remedies. Every medical man is bound, then, to oppose as far as he is able, the grasping spirit it implies. Not alone the present issue is at stake but the profession must give a lesson which will impress others who may become inoculated with the commercialism so rife at present. It is quite within the range of possibility that a thoroughgoing inflammatory reaction in the body medical now would produce enough mercenary antitoxin to make its members immune against attacks from this insinuating microbe for some time to come.

Bald Head.—J. Eichhoff finds that captol, a combination of tannin and chloral, has a remarkable effect on seborrhea of the scalp accompanied by pruritus, desquamation and loss of hair. He recommends the following formula: Captol, chloral hydrate, and tartaric acid $\bar{a}\bar{a}$ 1 gm., castor oil .5 gm., spirit of lavender q.s., wine alcohol, 65 per cent., 100 gm. Another effective formula substitutes resorcin for the chloral and adds of salicylic acid .7 gm. Apply a small amount in the palm of the hand once or twice a day, with friction until dry. The effect is more rapid with dry than with oily seborrhea.—*Annales de Derm.*, from *Derm. Zift.*, 1888, p. 25.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

What to Do and What Not to Do in Ear Troubles.

Cases suffering from ear affections occur in every physician's practice, and just "what to do or not to do" is often puzzling. A paper by Dr. Hang, (Munich) abstracted in the Journal of Eye, Ear and Throat Disease, January '99, gives a number of excellent points which I will endeavor to present to you in my own words.

Foreign bodies are of frequent occurrence, particularly in children and often some "handy" person has forced the "thing deeper in" in the effort to remove it by means of a hair pin, ear scoop, darning needle, etc.; the child, with a now painful ear is brought to the doctor. Ten chances to one the doctor can't see the object, (unless he uses a headlight) and he proceeds to "explore" for it using a rather large pair of forceps, with the result of forcing the body down to or through the membrana tympana and denuding the canal of much of its epithelium.

In cases of this character what should be done: *never*, or "hardly ever" use the forceps, as any hard, smooth body will surely slip from its grasp and sink deeper into the ear. First try to wash the body out with warm water, using a small tipped syringe and throwing the stream so it will pass the object and wash it out with return current. Failing in this, use a small probe or ear spoon and gently coax it out, under narcosis if the patient will not keep quiet.

Eczema and furuncles of the canal are frequent. The boil should be lanced at the proper time and the canal kept soft and moist by ointment (diachylon oint., oleo cocti, zinc oint. aa.) The salve can be smeared into the canal, or gauze coated with it used as tampon.

Even when nearly well, the tampon should be continued either dry or after painting with

R	Napthal B.	o.i.
	Acid Salicyl	o'5.
	Alcohol	35.
	Glycerine	15.

until the skin is smooth and scales have ceased.

Acute Suppurative Otitis Media.—Use opiates and hot applications to the ears for the relief of the pain. An elegant and inexpensive means of applying heat to the ears is had in the Japanese

"hot box," a small, metallic box covered with velvet, in which pulverized carbon slowly burns. A smoothing iron heated and wrapped in flannel answers a good purpose. If you poultice, first fill the ear with hot water and then apply the poultice and change with sufficient frequency to "keep it hot." Don't, whatever else is done, use Politzer's bag, or by any other means force air through the eustachian tubes into the middle ear during acute inflammation. If rupture of the drum does not occur and severe symptoms arise incise it. After discharge begins tampon the ears with small strips of dry gauze, when the acute stage passes into the subacute powder treatment may be introduced, blowing it lightly into the ear, not "en masse."

Chronic Pharyngeal Catarrh.—Aristide Malherlee (*Rev. hebdom. de Laryng. d'Otol. et de Rhin.*, No. 40, Oct. 1, 1898, pp. 1185-91) takes up the subject of chronic pharyngeal catarrh as an entity distinct from rhinitis capable of being successfully managed by curetting. He says that in the majority of cases the catarrh comes from more or less marked hypertrophy of the mucous membrane on the site of Luschka's tonsil. The patients have ancestors with manifest signs of adenoids. Nearly all of them breathe badly by the nose. At puberty complete involution of this tonsil does not take place and a catarrhal membrane is left, subject to attacks of acute or subacute inflammation. The tubular glands atrophy, the lymphoid masses proliferate and become hypertrophied, the whole forming a hard cushion with crypts and fissures, emitting a thick, viscous secretion, mucous or muco-purulent, whose presence, like that of a foreign body, invites to hawking efforts, nausea, and tenesmus.

The condition favors involvement of the middle ear. The respiration is of the mouth variety and induces dryness of the throat and mouth, perceived on awakening. Hoarseness and other troubles in phonation are noticed. The examination by posterior rhinoscopy shows mucous or muco-purulent masses.

Douches, powders, sprays, are all inefficient. The author recommends curetting under bromide of ethyl, which must be done more vigorously than in children because the masses are more resisting. Hot boric-acid solution is employed to irrigate the surface after the curetting. After eight days he applies cotton to the curetted surface, steeped in the following solution :

Iodine	1 grn.
Iodide of potass.....	3 grn.
Distilled water.....	40 grn.

This is repeated a few times.

Therapeutic Hints.

Insomnia of Alcoholic Pneumonia.—

R Codeine, gr. ij.-iv.

Elix. chloralamide, (gr. xx.-℥ss.) ℥ij.

M. S. Tablespoonful to be repeated if necessary every two hours until three doses are taken.

—A. A. SMITH, in *Med. Record*.

Vulvo-Vaginitis.—

R Aluminis,

Acidi carbolici, āā i.

Aquæ fontis, 100.

M. S. Apply three times a day.

—MONTI.

Dry Pleurisy.—

R Menthol, 0.5.

Cocainæ hydrochl.,

Morphinæ hydrochl, āā 0.1.

Unguent. simpl., 50.

M. S. Apply twice daily.

—NEUSSER

Tuberculous Laryngitis.—

R Carbolic Acid, 1-5 gm.

Lactic acid, 2-15 gm.

Neutral glycerin, 20 gm.

S. First anæsthetize affected parts with ten-per-cent. cocaine solution and then apply.

—DR. R. BOTRY.

Severe Syphilis.—

R Iodine, i.

Potassii iodidi, q. s.

Glycerin, neutral, 5-10.

Acidi citrici, 15.

Syr. simplicis, 1,000.

M. S. 3 i-ix. daily, half-hour before meals.

—BOUVERON, *Lyon Medical*, 2, 1898.

Pruritus Scroti.—

R Hydrar, chlor. corrosiv, 0.05.

Alcohol.

Aquæ chamomill, āā 25.

Chloroformi, 5.

Aquæ laurocerasi, q. s. ad 100.

S. Use as a wash.

Pharyngitis Sicca.—

R Acid Carbolic, 3 i.

Tinct. Iodine, m 5.

Tinct. opium, m 8.

Listerine, 3 2.

Glycerin, 3 6.

M. S. Spray pharynx 3 times daily.

Treatment of Burns.—The most exquisitely painful burns are assuaged in a few moments by an application of campho-phénique after the following formula:

- R Cocaine hydrochlorate, gr. v
Campho-phénique, ʒ ss.
Olive oil, ʒ ss.

M. Rub up the cocaine and campho-phénique and add the olive oil.

A man whose hand had been torn and badly burned by an electrical discharge, the pain of which was so severe that he fainted twice before the dressing could be applied, expressed himself as absolutely without pain in less than one minute after the application.—*St. Louis Medical and Surgical Journal*.

Chronic Conjunctivitis.—

- R Acid tannic, gr. 2 to 4.
Sodi biboratis, ʒ i.
Glycerine, ʒ 2.
Aqua, ad q. s. ʒ 4.

M. S. Put 2 or 3 drops in eyes 3 times daily,
or

- R Protargol, grs. 1 to 5.
Aqua pura, ʒ i.

M. S. Put 2 or 3 drops in eyes 3 times daily.

Nitroglycerin in Angina Pectoris.—It is authoritatively stated that the most efficacious form of administering nitroglycerin in angina pectoris is the following:

- Nitroglycerine, gr. iij
Tr. capsici, ʒ ss.
Spts. rectificat, ʒ iij.
Aqua menth. pip. ʒ iij.

M. Sig. Two to ten drops. In one minute the action of the drug is manifest, and in scarcely three minutes the pain is entirely done away with. As the patient grows accustomed to the dose it must be increased, and if this be done carefully there is no great danger to be anticipated.—*Med. Summary*.

The Treatment of Trigeminal Neuralgia.—

- R Phenacetine, } each.....45 grains;
Antipyrine, }
Quinine sulphate.....15 "

M. Divide into six powders. One or two to be taken daily.

Treatment of Exophthalmic Goitre.—According to the *Revue Médicale* for December 28th, Kant recommends the following:

- R Sulphate of duboisine, 1-120 grain;
Water, ʒo minims.

M. To be taken twice or three times daily. The author quotes a case in which this treatment continued for three months produced a marked diminution of the phenomena of the disease. The drug, however, occasionally produces somnolence and inebriety.—*New York Medical Journal*.

The Use of Mercurial Ointment Internally in Syphilis.—Silberstein, of Hamburg, considers this treatment much simpler than that by inunction and equally efficacious with the painful injection treatment. He gives the following formula :

R Mercurial ointment, 22 grs.

Powdered licorice, 75 grs.

Glycerin, 5 drops.

Mucilage of gum arabic, a sufficiency.

M. Divide into sixty pills. Two to be taken twice daily until all are taken.

Repeat every two weeks—care must be taken to keep the mouth clean.

Fatty food may be eaten freely.

Lavage for Anesthesia Nausea.—Dr. I. P. Gundy, (*Medical News*, January 21, 1899,) recommends washing out the stomach as a routine method of relieving the nausea and vomiting that so commonly follows the administration of an anesthetic. He bases his opinion on more than fifty cases in which he has employed the procedure and in which there was almost no nausea.

The operation is done before the patient recovers consciousness, and while the dressings are being applied. It makes the patient much more comfortable and hastens convalescence by permitting food to be taken earlier than would be the case otherwise. He says that he sincerely believes that the time will soon come when the gag and the stomach-tube will be a part of the outfit of the anesthetizer.

Saline Injections in Burns.—When the surface is much burned the circulatory apparatus, becoming choked by the thickening of the blood from loss of serum, may entail the most serious consequences and even death, as in a case Vignier reported years ago : a man fell into boiling water, which caused such a coagulation of the blood that none issued when a vein was opened. Large injections of salt solution dilute the blood to its normal conditions. Besson describes a case of extensive burns in which he injected ten liters of salt solution in five days, with the result that the delirium was arrested at once, the kidneys restored to normal and the patient was soon cured, when the prognosis had been most serious.—*Jour. des Sc. de Med. de Lille*, December 3.

Bright's Disease.—Lemoine recommends the following potion to stimulate the cutaneous perspiration in cases of Bright's disease with uremia imminent : Pilocarpin hydrochlorate, .01 gm.; mucilaginous vehicle, 100 gm. Take three to six tablespoons a day. This amount of pilocarpin is not sufficient to cause any disturbance, and yet it effectively stimulates the functions of the skin.—*Semaine Med.*, December 7.

Reading Notices.

EDW. L. H. BARRY, JR., M. D., Jerseyville, Ill., says: I have used Aletris Cordial with excellent results in the following: Miss R., 19 years of age, brunette, well-developed, but troubled with dysmenorrhea, called at my office, and after explaining her affliction said, "Doctor if there is any thing you can prescribe to relieve my suffering do so, for life is a burden to me now." I thought of the Aletris Cordial at once, and gave her a six ounce bottle, directing her to take a teaspoonful three times a day, commencing four or five days before the regular period. Several weeks afterward she returned with the empty bottle remarking, "I've come back for more of that medicine, for it's the only thing I ever had to give me relief." I can cheerfully recommend Aletris Cordial to the profession.

A PHYSICIAN of the first rank in Boston said recently, "The main difficulty in feeding consumptives is not to find food for them, but to quiet the nerves racked by pain and coughing—to quiet but *not* to depress them. This once accomplished, the forces influencing nutrition revive immediately and only then will nourishment of any kind find its way to the depleted tissues. Angier's Petroleum Emulsion is one of the exceptional few agents upon which I depend for this functional restoring process, and the *only* one in my experience that never caused any unpleasant sensation after swallowing."

I TAKE great pleasure in offering my testimony to the great value of Cactina Pillets, in cases of weak and irregular action of the heart. I have used them for four years and have never been disappointed in them. They not only stimulate the heart, but improve that organ permanently. I find them very useful in all cases of typhoid fever and pneumonia.

Kent, Ind.

C. B. MATTHEWS, M. D.

I HAVE used Peacock's Chionia and find it very effective. I shall continue to prescribe it in my practice.

New York, N. Y.

A. P. DALRYMPLE, M. D.

NOTES FROM A PHYSICIANS DIARY.—La Grippe is again prevalent throughout the land, being epidemic in many sections of the country. The sick list is greatly augmented, much valuable time is lost, and the mortality is directly and indirectly increased by its presence. The disease in its protean manifestations is almost regarded as the scourge of the country, for it leaves in its wake more sorrowing hearts and shattered homes than any disease known in recent years. The medical profession of to-day should realize the importance of early and judicious therapeutics as applied to the treatment of La Grippe. From practical

observation by men of experience in professional circles the following conclusions seems warranted. When a physician has diagnosed his patient's ailment as one of La Grippe, free catharsis should at once be instituted. For the intense headache, coryza, backache and general soreness, the following should be administered:

R Liquid Antipyretic (Tildens), f ʒ iv.

Sig. One teaspoonful every three hours.

After the pyrexia is under control, the sequella of La Grippe, may be permanently removed by the administration of Tablets of Liquid Antipyretic (Tildens) and Quinine ($2\frac{1}{2}$ grs. each) until all grip symptoms disappear. The troublesome cough which is a frequent accompaniment of La Grippe is controlled by the administration of teaspoonful doses of whiskey ad libitum.

UPBRAIDING THE DOCTOR.—Dr. Samuel Wolf, Physician to the Philadelphia Hospital, and Neurologist to the Samaritan Hospital of Philadelphia, presents among others, a case which is of special value at this time. He says: "The entire experience of the writer with antikamnia is not confined to the series of cases on which this paper is based, although its previous use had been limited to a few prescriptions, and those in cases where it was given after the usual routine had been exhausted. It is, however, to a striking result in one of these instances, that the incentive to investigate more fully, is to be largely attributed. A man of 42, in the course of an attack of La Grippe, was enduring extreme torture from the pain of a trigeminal neuralgia. The second ten grain dose of antikamnia gave such complete and permanent relief, that my patient, a druggist of large experience, upbraidingly asked me, 'Why didn't you prescribe this remedy before?'"

TABLET NERVITONE.—Wm. R. Warner & Co. are introducing a new tablet to the profession. The formula comprises active ingredients of a nature well calculated to fill the want of a good nerve tonic. Messrs. Warner & Co.'s preparations are so long favorably known that this new preparation will no doubt receive something more than passing notice. We recall the introduction some three years ago of Tono Sumbul Cordial (Wm. R. Warner & Co.) The rapidity with which it found favor at the hands of the profession is evidence that while a great deal is no doubt due to excellence of the formula, it was largely owing to the fact that all "Warner" preparations have a known therapeutic value and do just what is claimed for them. Messrs. Warner & Co. introducing Tablet Nervitone, write: "When the indications are for a prescription to correct asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone Tablets a remedy which will give satisfactory results. Being a combination of well known nerve tonics and stimulants. Tablet Nervitone will fill a wide field of usefulness in physicians' prescribing." Many of the so-called tonics contain coca and other substances calculated to produce that distressing condition termed the "drug habit" which necessitates a continuance of the drug or a withdrawal of the remedy at the expense of great suffering. Tablet Nervitone should be given a trial.

Reliable Medical Suggestions

How to Treat a Cough

In an able article under the above heading in the *New York Medical Journal*, Edwin Geer, M. D., Physician in Charge of the City Hospital Dispensary; also Physician in Chief, Outdoor Department, Maryland Maternite Hospital, Baltimore, writes:—

"The object of this brief paper is not to try to teach my colleagues how to treat a cough, but simply to state how I do it, what good results I get, and to call their attention to those lighter affections of the throat and chest the principal symptom of which is an annoying cough, for which alone we are often consulted. The patient may fear an approaching pneumonia, or be anxious because of a bad family history, or the cough may cause loss of sleep and detention from business. What shall we do for these coughs? It has been my custom for some time to treat each of the conditions after this general plan: If constipation is present, which is generally the case, I find that small doses of calomel and soda open the bowels freely, and if they do not, I follow them with a saline purgative; then I give the following:

R Antikamnia and Codeine Tablets, No. xxx.
Sig.: One tablet once every four hours.

"The above tablet contains four grains and three-quarters of antikamnia and a quarter of a grain of sulphate of codeine, and is given for the following reasons: The antikamnia has a marked influence over any febrile action, restores natural activity to the skin, and effectually controls any nervous element which may be in the case. The action of the codeine is equally beneficial, and in some respects enforces the action of its associate. The physiological action of codeine is known to be peculiar, in that it does not arrest secretion in the respiratory or intestinal tracts,

while it has marked power to control inflammation and irritation. It is not to be compared with morphine, which increases the dryness of the throat, thus often aggravating the condition, while its constipating effect is especially undesirable."

The London Lancet's Endorsement

"Antikamnia is well spoken of as an analgesic and antipyretic in the treatment of neuralgia, rheumatism, lagrippe, etc. It is a white powder of a slightly bitter taste and alkaline reaction. It is not disagreeable to take, and may be had either in powder or tablet form, the latter in five-grain size. It is described as not a preventive of, but rather as affording relief to, existent pain. It appears to exert a stimulating rather than a depressing action on the nerve centers and the system generally."

The Prompt Solution of Tablets

We are glad to know that the Antikamnia people take the precaution to state that when prompt effect is desired the Antikamnia Tablets should be crushed. It so frequently happens that certain unfavorable influences of the stomach may prevent the prompt solution of tablets, that this suggestion is well worth heeding. Antikamnia itself is tasteless, and the crushed tablet can be placed on the tongue and washed down with a swallow of water. Proprietors of other tablets would have had better success if they had given more thought to this question of prompt solubility. Antikamnia and its combinations in tablet form are great favorites of ours, not because of their convenience alone, but also because of their therapeutic effects.—*The Journal of Practical Medicine.*

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Original Communications.

A Running Account of My First Three Years' Surgical Work.

By HUBERT A. ROYSTER, A. B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, St. Agnes Hospital; Formerly House Surgeon, Mercy Hospital, Pittsburg, Pa.

[CONTINUED FROM PAGE 57.]

II. OPERATIONS ON THE LONG BONES. (1.) *Osteomyelitis of Both Humeri*.—Wm. K., age 23, mother died of "bowel consumption" and patient has had pneumonia. Examination shows sinuses leading to necrosed bone in both upper arms, middle third. Openings surrounded by area of redness and discharging thick pus. Incision made over sinuses down to bone; chiselled into medullary cavity, curetted thoroughly, irrigated with very hot water and packed with gauze. Dressed afterwards with iodoform-glycerin and hypophosphites given internally. Left hospital very much improved, but insisted on going out before the wounds had perfectly closed. A few weeks ago he was seen and stated that there was a slight discharge from a small opening in one arm, for the treatment of which he would return.

(2) *Osteomyelitis of Tibia*.—James E., age 12, was kicked on his right leg by a horse three years before. The wound healed, but a year afterward inflammation set in and the leg was operated on by a surgeon elsewhere, who removed some "dead bone." In the lower third of the tibia, a considerable distance below the site of the original wound, was a small ulcer from the bottom of which a sinus passed into the cavity of the bone. The boy was thin, pale and flabby; his leg was painful and useless. A longitudinal incision, four inches in length, was made over the hypertrophied bone, with the sinus as a centre, the sloughing skin-edges retracted and the anterior portion of the tibia chiselled away for this distance. The medullary cavity was cleaned of its gelatinous debris, curetted and packed with iodoform gauze. After many weeks of careful dressing and cod liver oil, the patient went home fat and his leg is now perfectly well.

III. REMOVAL OF BREAST FOR CARCINOMA; RECURRENCE.—S. L., colored woman, age 39, had noticed a tumor at the edge of her right breast for over a year, but it had been growing slowly until the past few weeks. When she first came under observation, it was the size of a lemon and located at the outer and upper border of the breast, projecting slightly into the gland. It was hard, not ulcerated, giving rather the impression of a fibroid, but was tender and the woman had frequent sharp pains in it. No involvement of axillary glands. Tumor was excised first (Feb. 11, 1897,) by a free incision and the wound closed by silk-worm gut sutures. Microscopical examination showed it to be a medullary carcinoma. Recurrence took place after several months and on Dec. 7, 1897, the whole breast was removed along with a good portion of skin, fasciae and muscles of the chest. This seemed to have little effect, for in a short time the growth again returned, this time still further out toward the side of the chest, on a level with the original position. Still, no encroachment on the axilla. The tumor was fixed to the ribs and fasciae, and was beginning to ulcerate. The patient at this point absolutely refused further operative procedures, preferring to die instead of giving herself the additional chances of prolonging life.

Death took place in the summer of 1898. One point may be emphasized, viz., that neither cleaning out the axillary and clavicular regions nor excising both pectoral muscles could have prevented the recurrence of this tumor.

IV. GENITO-URINARY OPERATIONS.—(1) *Circumcision*.—I have done this operation six times. Though comparatively unimportant, pains must be taken in its performance to insure good results. Two points I am always careful to observe: (a) not to remove too much of the prepuce and (b) to keep the cellular tissue between mucous membrane and skin carefully in place with a probe while tying the sutures (Jacobson). Only one of the series need be dwelt upon—a case of *congenital phimosis with adhesions* in an adult. J. M. H., age 21, had had gonorrhœa for three weeks. For several days before he came, he had suffered intensely on account of difficulty in micturition. Examination showed a well-marked phimosis, with a pin-hole opening in prepuce; the head of the penis was small, not pointed, and there was no distinct corona. He stated that the deformity had existed since birth, but gave him no annoyance until he "caught the gonorrhœa." The indication was to give him immediate relief and treat the urethritis. On Aug. 25, 1896, under chloroform anesthesia the prepuce was layed open on a grooved director and the firm adhesions separated an inch and a half back, exposing the meatus. Pieces of skin and mucous membrane cut off. No attempt was made to perform a typical circumcision. Gonorrhœal pus bathed the field of operation. Dressed with acetanilid powder and gauze. While the patient was in bed his gonorrhœa received the attention which it could not have before. Epi-didymitis complicated the convalescence, but in two weeks he was discharged and told to return after several months to have a careful plastic operation done. The cicatricial contraction, which took place, closed tightly around

the meatus, so that when he again appeared after six months he still passed urine with difficulty through a small opening, which was becoming narrower. Operation, March 26, 1897, ether anesthesia: Two-inch longitudinal incision with sharp tenotome on dorsum of penis through scar down to glans tissue. Dense adhesions. Preputial flaps dissected up with very great difficulty, manufacturing really a glans and a corona glandis. After continuing the dissection backward almost to the base of the penis, the redundant skin was stretched tightly over the head and cut off closely with scissors, then the mucous membrane trimmed and these stitched together wherever possible with interrupted catgut sutures. Bleeding controlled during operation by rubber ligature around penis. Troublesome hemorrhage for six hours after operation. Patient made a good recovery with an excellent result. This operation was extremely tedious and trying, much more so than would appear.

Two operations for (2) *stricture of the male urethra* were included in this record. One of these—an *external perineal urethrotomy without a guide*—was published in the NORTH CAROLINA MEDICAL JOURNAL, April 20, 1897, and is the only one reported in this State, so far as I am aware. The patient is still in perfect health. The other was an *internal urethrotomy*, a rather peculiar case, and may be referred to here. C. H., age 50, had had gonorrhoea several times earlier in life; at the age of 25 had a urethral chancre, which was cauterized by a physician who (the patient says) inserted the solid stick of silver nitrate into the meatus. From this, cicatricial contraction took place and the man had had progressively increasing difficulty in urination ever since. He kept deferring the operation until the stream of urine was very small and it required an hour at times to empty the bladder. His meatus was so contracted that it would not admit any instrument for exploration. Operation, Feb. 6, '98: Parts thoroughly anesthetized with cocaine. Meatus enlarged by incision with bistoury sufficiently to admit a meatatome, the urethrotome being too large. The strictured portion extended 2 inches into the urethra. It was cut throughout its whole extent by the meatatome, drawing it from behind forward in the medium line. At the bulbo-membranous junction another stricture was located. This was not disturbed at that time but yielded later to gradual dilatation. The passage of steel sounds has been continued systematically and the patient is now free from any annoying symptoms.

(3) *Hydrocele*.—Wm. D., age 65, had a large left-sided hydrocele which had been tapped about 15 years before and injected with carbolic acid. After disinfection, trocar was inserted, 8 ounces of fluid evacuated and 3 drachms of Churchill's tincture of iodine introduced.

(4) *Excision of Testicle*.—The right testicle of a colored man was removed in 1896 for tubercular disease. The condition was far advanced, the spermatic cord showing signs of involvement high up and there were two sinuses on the right buttock leading to a probably tubercular hip joint. Section of the cord was made as far up as possible. The patient recovered

from the operation and the parts seemed healthy at the time of dismissal, but he has not been heard from.

V. RECTAL OPERATIONS.—(1) *Hemorrhoids*.—Four operations for "piles" are in the list. The ligature was used in all, this being considered the safest and surest method. Results were perfect in each case. One patient was over sixty years old.

(2) *Fistula in Ano*.—Three cases of fistula were operated upon, each one being cured. One was a woman six months' pregnant. Simple slitting up on a grooved director and packing with gauze was the method employed. All tracts in the surrounding tissues were followed up and curetted. Constant attention in the after-treatment was the rule.

VI. GYNECOLOGICAL OPERATIONS.—(1) *Urethral Caruncle*.—Three patients with this condition presented themselves. The treatment consisted in extirpating the growth with knife or scissors, and the application of pure carbolic acid to the raw surface. In only one did recurrence take place and this has now the appearance of malignancy.

(2) *Vesico-vaginal Fistula*.—One case, Frances G., colored, had been annoyed with dribbling urine for five or six years, coming on after a tedious labor. Two fistulous openings into the bladder were found in the vault of the vagina—one (about the calibre of an ordinary lead pencil) a half-inch anterior to the cervix and the other (somewhat smaller in diameter) about the same distance downward and to the left of the cervix. These were considered too far apart to convert into one foramen. Two operations were performed, the first in April, 1898. At this time the edges of each fistula were denuded separately, bevelling toward the bladder and sutures of silk worm gut introduced and shotted. After-treatment: Absolute rest in bed for two weeks, catheter used every four hours at first, then every six hours for five days. Union of lateral opening perfect; but the fistula on the anterior vaginal wall failed to unite properly. A second operation was done on this, June, 2, 1898, using the same method as before, with the result that the patient was able to urinate voluntarily without leakage on the fourth day and an ideal healing had taken place when the stitches were removed. The woman has been free from her distressing affliction since and feels grateful for her riddance.

(3) *Curettage of the Uterus*.—This operation was performed nine times. In one case the friable cervix of a colored woman was curetted and the tissue (examined by Dr. K. P. Battle, Jr.) found to be malignant. The uterus being free and no vaginal involvement apparent, hysterectomy was advised, but declined, and the patient has since died. There is no simple operation from which better results may be expected, if properly performed, than the curettage of an inflamed and degenerated endometrium. And yet care should be taken in the technique. The aseptic precautions must be as perfect as in an abdominal operation; the curette should be handled lightly and intelligently; and the after-treatment ought to be directed toward improving the patient's general as well as her local condition. I think, as a rule, these

patients are not kept in bed a sufficient time. Two weeks' rest in the horizontal position, with massage, bathing and a nutritious diet, is as necessary for many of them as the curetting itself. It is certainly better to etherize every patient for curettement, unless there is some special contraindication. The rule in my cases was to insert a strip of gauze loosely into the uterine cavity for drainage and also to place pieces of gauze in the vagina. These tampons and the strip were all removed at the end of 48 hours, and weak antiseptic douches administered once or twice daily thereafter. To avoid overdoing these cases, it is well to discontinue all local treatment as quickly as possible and to refrain from catering to the various pains and aches often left behind.

(4) *Trachelorrhaphy*.—The operation of repairing a lacerated cervix was done three times, in all of which the pathological condition imperatively rendered the procedure necessary. The *first* was a case of long standing metrorrhagia with a large hyperplastic cervix. Emmet's operation was done, using silk-worm gut sutures, and a thorough curettage performed at the same time. Result: relief until a year afterwards when a repetition of the curetting was demanded. The *second* case was somewhat more interesting. A colored woman, 29 years old, had, at the age of 15, given birth to an illegitimate child. Six years after she married, but had never become pregnant again, though she and her husband were both anxious for offspring. She complained of the typical symptoms resulting from laceration of the cervix. Physicians she had previously consulted told her that she needed an operation on her womb. There was a cervical tear running up the left side of the uterus at least an inch and a slight laceration on the right. Uterus curetted first and the cervix repaired. Patient went home cured. In two months conception took place and I attended the woman in a normal confinement nine months later. The *third* case was an old laceration, accompanied by eversion and hypertrophy. Cervix repaired by the usual method, with good result.

(5) *Perineorrhaphy*.—Two operations for restoring lacerated perinei were performed during my first three years. They were both complete tears through the sphincter and of many years' standing. Each patient had been treated for "chronic diarrhoea" by numerous physicians with still more numerous drugs. The *first case* (done in September, 1895, the second month of my practice here) was a woman, Mrs. B., 29 years of age, tall and thin, who had suffered for nine years without relief. The V-shaped rectal tear extended 2 inches deep. Mrs. M., the *other case*, was 52 years of age, short and stout, had passed the menopause uneventfully, but was very much distressed by loss of control over the sphincter. The laceration was not so long as in the first. The same technique was used in these cases and both of them were permanently cured, the writer having had occasion to examine them several times since. After freshening the edges of the rectal septum and the ends of the torn muscle, an area was denuded on the vaginal surface as in Hegar's method of repairing the perineum. Rectal sutures of catgut

were first introduced and tied in the bowel. Silk-worm gut sutures were then used to coapt the perineal raw surfaces, going from the highest to the lowest point and being sure in the latter situation to pick up the sphincter-ends with a deep bite. The advantages of catgut as a rectal suture material are obvious.

[TO BE CONCLUDED.]

Pseudo Membranous Enteritis.*

By J. M. FLADGER, M. D., Summerton, S. C.

IN presenting a paper on the subject selected, I do not claim to give anything new to the profession in regard to the Pathology, diagnosis, or treatment of this disease.

But as it is a rare trouble, perhaps not having been treated by many present—and also as the history of the case to be presented for your consideration differs in so many respects from the usual course of the disease, it is indeed unique.

The definition given in the books is as follows: “A non-febrile affection, consisting in a peculiar and usually *persistent* morbid condition of the mucous membrane, marked by the periodical formation of viscous, shreddy, and tubular exudates, in the discharge of which amelioration of all symptoms occurs.”

We have no accounts of this trouble in the writings of the ancients, and indeed nothing describing it as a distinct trouble until about the eighteenth century, when some writers speak of the tubular exudate, associated with Diarrhoea and Dysentery. It was not until the year 1818 that Powell recognized it as a distinct trouble, and since then it has had a place in Nosology. It is rarely seen in childhood—mostly between the ages of 40 and 50. Females are much more liable to it than males, and the blonde type, light hair and fair complexions—but without consuming your time in giving a general history, I will proceed to give that of my patient. On March 29th, 1895, was called to see Nannie, daughter of Rev. C., a robust and healthy child of five years, dark complexion, black hair and brown eyes. Found her suffering with an acute Gastritis, temperature 102, pulse 115 and respirations about 30. The tongue was coated with a heavy white fur, and the nausea and vomiting were most distressing.

I prescribed Cal. $\frac{1}{10}$ gr., with Sacch Pepsin every hour, warm applications over the epigastrium, etc., with only partial relief of symptoms. On my second visit that day found her extremely prostrated. As the integrity of the stomach was not improved, I commenced to use nutritive enemata, alternating Liquid Peptonoids, with Bovinine and milk, and later brandy was added, according to indications. The case went on for a few days with little or no

*Read before the Tri-State Medical Society of the Carolinas and Virginia, held at Charlotte, N. C., January 1899.

improvement in the gastric symptoms, but the coated tongue was succeeded by an intensely red and sleek one, attended with a very *high* temperature and great restlessness. Locally I used mustard, turpentine, poultices, etc., with a final resort to a blister of Spanish flies. I should add that the materia medica was exhausted in the use of remedies internally, and with the assistance at times of two medical men, the relief was only temporary. The thirst was most *intense* and *distressing* throughout the course of the disease.

Her appeals for water, that would be ejected as soon as swallowed, were indeed pathetic. When convinced that she could not retain it, she insisted that her *brothers* and *sisters* should drink it, and even guests at the house were importuned to do likewise. This was about the third week of her illness. There was never any marked tenderness over the abdomen, nor was there any tympanitis, but rather a depressed and sunken appearance of the whole area.

As I lived near, I visited her three or four times a day and watched the case very carefully. The gastric symptoms were so urgent that my mind was not at all prepared for the peculiar sequel about to be described.

About 3 o'clock in the afternoon I was hastily summoned to her bedside to be told that she was sinking rapidly. Every appearance of the patient confirmed that opinion. A cadaverous color of skin, bathed in a cold sweat. No pulse at the wrist, respirations 40 to 50 to the minute, and every symptom pointed to a rapid dissolution.

I remained with her for several hours, and to my surprise about 7 o'clock she began to rally, and under the influence of stimulants she soon regained consciousness. I regret that I did not keep a daily record of symptoms, but soon after this my attention was called to the peculiar character of the discharges. Floating in a thin liquid I noticed shreds of membrane, mucus, etc., which at first made me think of Dysentery, but that was too contradictory to all the symptoms.

Here was a bowel retaining and absorbing all the nourishment she had taken for three weeks, with little or no tormina or tenesmus at stool, so I was compelled to await developments before giving a *positive* diagnosis. The gastric symptoms improved rapidly from this time, but the emaciation was extreme, such as is seen in typhoid about the 4th week. The father was a very intelligent gentleman, and I requested him to examine carefully all the dejecta. From time to time, but not constantly, did these exudates appear, but one morning he showed me a piece of the tubular variety, six inches or more in length.

My diagnosis of Pseudo Membranous Enteritis was then made out. The treatment was supportive internally and astringents locally—first the vegetable, but later nitrate silver 10 grs. to the ounce introduced through a rectal tube 12 inches long.

The digestion was then so much improved that she took readily liquid nourishment in the normal way: these applications of silver were made once a day until symptoms of absorption were noticed in the skin, when they were

discontinued. Under full doses of Iodide Potash the skin cleared rapidly, and I then considered her convalescent. As soon as practicable and on account of the near approach of hot weather, a change to the up-country was suggested. She continued to pass shreds of membrane for about three months, and had a slight attack of indigestion while away—but with this exception her convalescence though slow, was uninterrupted. When she was advanced far enough to begin walking, she lost all power of co-ordination and had to be taught as an infant. I have given a very imperfect history of the case and will recapitulate in so far as to show the variations from the normal course of the disease.

1st. The patient was a child of five years, whereas all reported cases are adults.

2nd. The attack was ushered in with the most alarming symptoms, attended by high febrile excitement.

3rd. The course of the disease was much shorter than usual, most cases assuming a chronic character, and running on for years.

4th. Complete loss of motion and later of co-ordination. I have not seen the case for three years, but from last accounts she had made a complete recovery, developing rapidly, both mentally and physically.

Typhoid Fever, Diagnosis and Treatment.

By ROLFE E. HUGHES, M. D., Laurens, S. C.

Mr. Chairman, Gentlemen, Members of the Tri-State Society:

IF I could consistently think that your patience in listening to me would be rewarded by my impressing you with any very new, valuable or radical suggestions, then indeed with great calmness, I would exultingly treat at length the subject I have before me: that of typhoid fever, its diagnosis and treatment; but I realize, being upon a well beaten path, one that has been ably traveled by many eminent diagnosticians before, and certainly I would shrink from even treading cautiously upon one so hard and worn, but for my enthusiasm inspired by the organization of this Society, and seeing I am accompanied along the route by the most eminent men of three States. Most of the Virginia gentlemen present are personal friends, North Carolina's sons are our entertainers and the Palmetto State, my adopted home, is well represented, so I at least will expect leniency of criticism, and should I lose my way, attribute it rather to a want of time for gathering full directions, and place me on the right route.

It is useless for me to add how honored I feel at being allowed to appear before a medical body of as high character as the Tri-State Society, and be permitted to participate in its scientific deliberations. It is a happy moment for me and I shall ever remember gratefully and pleasantly these distinguished privileges, for aside from the real and scientific part, there is something inspiring and touching, to see a congregation of medical men discussing the ills of mankind and the best possible means of combatting them.

Man is heir to many troubles, our life work is the study of these. 'Tis a serious responsibility and oft times a gloomy undertaking. Our life is spent on the dark side of human existence and misery, in the deepening shadows of which, as some writer has aptly said, "the God-like creations of the poet seem hideous masks," still our duty is always the same, studying nature, vigilantly watching, cheerfully aiding. All through our professional lives, stern realities daily dawn upon us, much of the sentiment, romance and tenderness of our real selves having been sacrificed in our search for truth.

Each day tells us more, the strides are rapid, newer fields are opened up, and now we are told of myriads of bacteria swarming in the air apparently the purest and lurking in so many places we least expected; that our cool, clear mountain spring is a favorite resort and even that the Sacrament Cup and Holy Wine is not exempt. We further know many of our worst diseases are directly traceable to these organisms, each having his preferred mode of attack and selected soil. Probably one of the best known now is the bacillus of Eberth which by drinking water, milk or what not, insidiously steals along the alimentary tract and finding a suitable camping ground at Peyer's patches, flourishes and multiplies to such an extent that he moves his habitat to neighboring tissues, and continuing to trespass, the integrity of the tissues is so upset that we have a patient; usually his age will be between fifteen and forty years, (this is of some diagnostic value) with headache, insomnia, furred tongue, flagging energies, disturbed circulation, anorexia, epistaxis. He thinks he is "bilious;" we too often concur, order mercury and podophylin; patient departs, partakes of hog-sausage, coarse beef, hard boiled eggs, heavy bread, chicken salad, fruit cake and such poisons, when we are summoned again. Our diagnosis should have been made before, but the diagnosis of typhoid fever is not always easy; even in uncomplicated, cases a careful and exhaustive physical examination of patient and investigation of surroundings is always necessary. All are familiar with the array of symptoms so nicely arranged in text-books and few of us are prepared for the serum tests, hence it is an individual study of each case and the intelligence of the practitioner that decides.

For instance, the characteristic temperature record of the so-called step ladder temperature, is in many cases a curiosity. The pulse is not necessarily characteristic and certainly not pathognomonic.

Enlargement of the *spleen is of strong diagnostic value* combined with others. It is usually palpable by the eighth day and if there is not too much tympanites this disappears as fever lessens. Septicæmia, malaria and miliary tuberculosis should here be excluded.

Rose spots are important signs and when present, are typical, but I have never seen them in more than thirty per cent. of the cases; their appearance is usually on the ninth day. Gurgling in right iliac fossa must be looked for but this accompanies many intestinal troubles and all the diarrhœas, yet if accompanied by tenderness and we can exclude appendicitis and pelvic abscesses, then we may expect Typhoid.

The initial chill amounts to very little so far as a diagnosis is concerned, and often as many as six chills may, at varying intervals, occur in unquestionable cases of Typhoid. This is misleading and in my section of South Carolina where Malaria abounds, often is the cause of confusion.

Thus, First—In typhoid we have the initial chill;

Second—Chill at onset of relapse;

Third—Result of antipyretics;

Fourth—At ushering in of complications as pneumonia, pleurisy, acute otitis, suppuration in mesenteric veins, pyaemia, abscess of kidneys, perforation, etc.

Fifth—During convalescence in bad cases, and Sixth—when concurrent malaria exists; this is rare.

To recapitulate; I look for the following, and combined, consider them accurate: malaise, headache, chilliness, pain in back and limbs, tongue pale and indurated (in beginning) margins indentated, *it is put out slowly and retracted indifferently*; there is confusion of ideas and mental torpor. Tinnitus aurum, epistaxis, ascending pyrexia, photophobia, anorexia, rose spots, gurgling and tenderness in right iliac fossa, constipation or diarrhoea, *and lastly vertigo*. This last I regard of great value. Patient on attempting to stand erect, trembles, and the nervous symptoms are pronounced. Then a diagnosis is to be made from cerebro-spinal-meningitis, for many cases of typhoid began as typical meningitis. Fortunately the latter trouble is rare and other symptoms with surroundings, usually settle doubts.

So much for the diagnosis—now how shall it be treated?

Within the last few years over eleven hundred remedies have been tried or suggested for typhoid fever. All sorts and kinds of food have been advocated; hydrotherapy and antipyretics for the temperature; intestinal antiseptics, etc. While special symptoms arising in the natural course of the disease have been experimentally dealt with by almost every resource of the pharmacopeia, there are few measures or means at the command of the physician which fulfill our wishes invariably, or even none which in all cases so far promises a specific; therefore he who adopts any one to the exclusion of all other effort, be it in the line of hydrotherapy, antiseptics or what not, fails in his duty to his patient, his profession and himself. It has been said, "The best treatment is a good physician," one knowing the natural course of the disease and able therefore to intelligently anticipate its various complications and phases. Knowing these, how can he have any radical fixed schedule which will be best for all cases and their circumstances? He should be watchful and conservative, using his judgment and adopting such measures as his good sense will in individual cases dictate. It may be Woodbridge or Brand, in whole or in part, or probably a happy medium by the combined antiseptic and hydrotherapy methods; judgment must be exercised in mode or manner of each. Unquestionably hydrotherapy, variously modified, is for its indications the best treatment known, always to be used in hospitals and in private practice when possible. The treatment summarized embraces:

- I. General management and nursing;
- II. Diet;
- III. Treatment of the temperature;
- IV. Antiseptic Medication;
- V. Treatment of special symptoms;
- VI. And the convalescence.

General Management: A typhoid patient should be in a cool, well ventilated apartment, confined to the bed from the onset and remaining until convalescence is well established. The woven wire bed with soft hair mattress is best. A rubber cloth should be under the sheet; a good nurse in charge and the physician should at each visit, write out specific instructions.

Diet: Foods easiest digested and obviously those leaving behind the smallest amount of residue. Milk heads the list and ordinarily about three pints for an adult in 24 hours. It is often advisable to dilute this with water, lime water or even aeriated waters. It should be given at regular intervals and judgment exercised, for too much leaves masses of curds and thus proves irritating. The usual broths, chicken or mutton come next and many of the beef juices are good.

Water should be given in abundance and pleasantly cool. My experience justifies making this of paramount importance and I wish I could go into the merits. **Treatment of the temperature:** Bathing or sponging and not the use of coal tar antipyretics. Sponging with cool water is the preferred practice with the most successful physicians of my section. Dr. J. P. Simpson, of Laurens, who deservedly enjoys a great reputation and has had extensive experience with typhoid fever, has to my certain knowledge had amazing success especially in the last two years. Dr. Simpson's method of administering the bath is to place a wire cot by bed, upon this lay a piece of oil cloth and cut opening in centre for water to escape into vessel below, weight of patient causing the cloth to dip, thus throwing water to centre; patient stripped, is sponged with water, temperature 70. In some instances it is poured over, always using it in temperatures of 102½ or 103 and repeating as necessary to control this temperature; friction is used while administering and to point of bringing glow; when returned to bed cold pack to head.

Antiseptic medication: The efforts to settle upon an agent destructive to the typhoid bacilli or the toxic agent they produce, so far is a failure and we adopt Yeo's plan of the chlorine waters; it has not been satisfactory but certainly does no harm, therefore is a pious fraud. The intentions are good. For my own part, Solol is the remedy when there are no cardiac complications.

Treatment of special symptoms: For tympanites and abdominal pain, turpentine stupes, diarrhoea if severe, starch and laudanum enemas or subgallate of Bismuth; no opium, even in form of Dover's powders. Constipation if demanding notice is best met by Hunyadi water.

As to hemorrhage and peritonitis, the two grave complications, all are familiar with and I suppose all treat alike.

For the nervousness, hydrotherapy again comes and cold water to head; after the sponging and application of cold water cap, the result is usually so satisfactory as to admit of no strictly medical sedatives.

Brandy and strychnia head the list for progressive heart failure; digitalis is not good.

Convalescence requires even as much care and watching as the acute and active stage of the disease. Over eating and too much exercise are usually the causes of relapse. The other minor details fall in line too naturally to tax your patience here, so I relieve you.

Laurens, S. C., January 17, 1899.

Lithæmia.*

By JOHN N. UPSHUR, M. D., Richmond, Va.,
Professor of the Practice of Medicine, in the Medical College of Virginia.

CLINICAL observation, and personal experience for several years have impressed upon me the importance of this subject. Gout, when frankly declared in a joint, is very easy of diagnosis, and clear in its therapy, but when the subject of the gouty diathesis rarely or never has a joint involved, and the lithæmic manifestations, indicative of excess of uric acid in the system, declared by phenomena in skin, mucous membrane, viscera, ears or eyes, the diagnosis becomes more complicated, and consequently the indications for treatment more vague and embarrassed. A factor in the manifestation of the phenomena above indicated is age. We find that when the subject has attained middle life, when all nutritive processes have reached their climax, especially if there be heredity as a predisposing cause, mental strain, worry and anxiety, I am confident, both as the result of my personal experience, as well as clinical observation, that some subjects have combined two heredities, tubercular and gouty. The first shows itself in early life, some tubercular joint affection, or incipient tuberculosis of the lungs, overcome by an improved environment, the substitution of hyper-nutrition for a condition of malnutrition, and the gouty diathesis over-rides and stamps out the tubercular. We find in the subject increase in weight, digestive and assimilative power, improved energy and greater capacity for work. We are surprised to see the prognosis of early demise, changed radically to a state in which the subject has a first class chance of living out his expectancy. I would not be understood to take position as a skeptic as to the causative and infectious nature of the tubercle bacillus, but I ask you to ponder the question of the anti-germicide, yes, fatal effect upon the tubercular germs of excess of uric acid in the system, finding as it does elimination from the body by every emunctory channel, and mucous surface.

Of the active causes of lithæmic manifestations, various articles of diet must bear the onus, and this causation varies with different subjects, mani-

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festing itself in various ways, the general proposition that sweets and acids, wines and malt liquors, excess of various kinds of nitrogenous foods, all make themselves known in symptoms ranging from simple discomfort to agonizing pain. Strawberries, an orange, a raw tomato, or even a little tomato in soup, declaring its effects by a violent erythema on the hands, or feet, or face, itching of the nose, or a furious and tormenting urticaria within a few hours after digestion, sometimes only recognized by a sense of tension or swelling in the fingers, a burning sensation in the toes or the sense of the shoe being too tight. At other times we find the effete material seeking elimination from the system by the skin, and a furious and intractable eczema, moist and acute, in its manifestations. I treated a lady for an obstinate attack of gout in left foot and ankle. The same time the next year she developed an obstinate attack of acute (moist) eczema in her left arm, resistant to treatment both local and general, a full dose of pilocarpine at night resulted in the most profound exacerbation of the eczema next day, so that she was unable to grasp anything with that hand, and arm so swollen that it was tense and hard and very painful, and the itching beyond endurance. Great comfort was given by the application of a strong solution of bicarbonate of soda in cherry laurel water, swelling subsiding and itching and pain relieved, and arm almost completely well in forty-eight hours. I believe this eczema was lithaemic, and the pilocarpine temporarily aggravated the condition by a largely increased amount of uric acid elimination. Persistent and distressing itching of the nose will sometimes be the only indication of lithæmia. The digestive tract is a frequent seat of uric acid eliminative irritation. Some of the cases of acid dyspepsia that come under observation are clearly traceable to elimination of uric acid, and not responsive to ordinary remedies. The burning is more intense, there is a sense of *glow* in the stomach, alternating at times with nausea, and accompanied by areas of itching, flying about from scalp to nose or face, upper and lower extremities. The subject will sometimes awake in the morning with a nasty, pasty taste in the mouth, urgent desire to go to stool, and will have frequent copious and very acid actions, amounting to fifteen or twenty in the following twenty-four hours, scalding, burning, and very exhausting, with a sense of faintness or goneness. At the same time the urine is scalding, scanty, high colored, and very acid. The condition seems to relieve itself, the bowels becoming quiet so soon as eliminative action is complete. Or the manifestation may be in the form of acute pain in the bowels, most commonly located in the colon, sigmoid flexure, pylorus, or some part of the colon tract, coming on with a sense of depression. Sometimes agonizing cardialgia succeeded by nausea, the pain then becoming fixed in one of the points, the caecum is its most common location, some cases simulating very closely appendicitis. The pain is burning, rending in its character, with a sense of unendurance. It must be felt to be appreciated. The writer has had four attacks of this nature, two being in the caecum, one in sigmoid, and one in the pylorus. It felt as though a mass of hot live coals had been put at the spot, reinforced by a free dose of mustard.

After the agony of the early part of the attack has been controlled, the sense of soreness extending over the whole abdomen, is so great as to make the even act of changing one's position in bed intensely painful. On one occasion, for a week after the attack there was the sensation as though a knife was run into the abdomen, when any jolt came, the rolling of the carriage over the street crossing was almost insupportable. In conjunction with the last and most severe attack located in the caecum, a retino-choroiditis developed in the left eye, making itself felt first by a sensation as if a grain of sand was in the eye, followed by pain and soreness in the ball, and loss of sight up to the point of being unable to recognize any object other than light. The eye was completely restored in ten days after taking a mixture of strychnine, dil., muriatic acid, and pepsin. I tried the experiment of a bottle of beer on going to bed at night, awoke next morning with nasty taste in my mouth, crawling, itching sensation of skin on various parts of the body, and painful ringing in the ears. This ringing in the ears is one of the most common manifestations of lithæmia, with or without headach. This latter is dull, persistent, with more or less confusion of ideas, though Haig says its duration is under twenty-four hours. I fully agree as to the other characteristics of it which he describes. My experience of blurred or indistinct vision in connection with these headaches has been similar to his. Nor is this all, interference with normal metabolism, is a not infrequent cause of lithæmic manifestations; anything causing over nervous strain, business cares or worries, anxiety about a patient, over work, reacting on the stomach through its nervous supply, interfering primarily with digestion and subsequently with metabolism, will be productive of as well defined evidence of lithæmia as any other one thing. Very commonly associated will be a torpid liver. This organ has failed to dispose of the effete material that should be burnt off. Uric acid accumulates in it, the blood becomes too acid and the undefinable lithæmic symptoms show themselves. Nor will ordinary alkaline remedies bring relief, until the liver and portal circulation have been unloaded by a sufficient dose of calomel, and thus with these conditions described, is it strange we see gouty kidney, atheromatous degenerations of the blood vessels, the development of mental depression, or organic degenerative change in the brain.

Time does not allow me to go into a more detailed discussion of this subject. You will find it all elaborately treated with the hand of a master by Haig in his work "Uric Acid in the Causation of Disease." But in justice to myself I must say, my own clinical observation and personal experience had pointed out to me these clinical facts which I have so imperfectly detailed.

Whether these symptoms are due to excess of uric acid in the system, or whether, as Haig claims, this excess is relative from an interference with the balance, I cannot say. He says a certain amount of uric acid is taken in daily with our food, a certain amount generated in the system; that, if the balance is interfered with and not so much excreted as has been accumulated in the organism, the blood becomes acid, fails to be a solvent and thus

uric acid is left in the tissues joints or deposited in the liver, spleen or kidneys. Just so soon as the blood becomes alkalized by soda phosphate or the salicylates, it becomes a solvent for the uric acid, it is taken up and excreted from the system. I can testify to the efficiency of soda phosphate and the salicylates, though the latter are apt to disagree with the stomach. Haig says "And lithia * * * though said to be a beautiful solvent of uric acid in the test tube, yet when given to the human subject by the mouth never reaches the uric acid at all, because it forms at once an insoluble compound with the phosphate of soda in the blood, thus removing from that fluid one of the natural solvents of uric acid, and diminishing its power of holding uric acid in solution." This, if it be true, is a terrible blow to all of the varied lithia waters that have been so much vaunted as remedial in every variety of lithæmia or gout, so far as the lithia salt held in solution is concerned. That water, freely drunk, does much good in the process of elimination, there can be no doubt, but it is because as a solvent it takes out of the system effete matters. Beale says "Water freely drunk, goes into the cracks and crannies of the system and washes out the cobwebs."

In conclusion, the treatment of lithæmia consists chiefly in dietetic regulation and this must depend on each individual case. The value of sodium phosphate, I have already alluded to. The saline cathartics, in full blooded subjects, the purgative waters, especially the Rubinat Condol, the bitter tonics, especially, *nux vomica*, and the infusion of cinchona. Strychnia is valuable because it not only improves nervous conditions and digestive processes, but is also eliminative, by its quickening the performance of function in the emunctories. It causes marked rise in urinary acidity, and cures headache (Haig). Exercise is of great importance, walking, horseback, or bicycle. I am inclined to the opinion that the administration of the salicylates should be preceded by a course of pure alkali as potass, bicarb, until the urine is neutral and because it makes the salicylates more efficient and diminishes the danger of a subsequent endocarditis, and valvular damage.

In articles of diet, I would especially mention as useful free use of milk. Taken hot it improves digestion, acts as a stimulant to nutritive processes, and predisposes to alkalinity of the blood. Tea, I regard as more harmful than coffee. Its tannin constituent tends to gastric derangement, and thus secondarily interferes with metabolism. Coffee has a tendency to the kidneys, and is, in some measure, eliminative. I would condemn especially, wines, malt liquors, &c., believing that whiskey is least harmful, but even it should not be taken unless there is some factor of debility general or digestive, which demands it, and even then it should be in very small quantity.

Time does not admit that I should go more fully into the discussion of this subject, but if what I have said has excited your interest and given you food for thought, I am amply repaid.

210 W. Grace St.

DISCUSSION.

Dr. Geo. W. Long.—I desire to remark that I have been very much interested in Dr. Upshur's valuable paper and while I do not know that I can add anything of value, I will observe that the manifestations of lithæmia are difficult oftentimes to enumerate. We are told that as the alkalimty of the blood is decreased we may expect uric acid accumulation about the joints, viscera, etc., and that this feature is due more to its defective elimination than to excessive formation. Patients of full habit who lead sedentary lives, are more likely to suffer, in my opinion and my experience leads me to believe that satisfactory results may often be obtained by advising exercise in the open air, and cutting down the nitrogenous foods, i. e., meats, partially or wholly and the free use of alkalies. I do not know, as stated by Dr. Upshur, that milk predisposes to alkalimty of the blood and would be glad to hear from some one else.

Dr. Hunter McGuire.—I ought to be in a position to say something on this subject, for until not long ago I was disabled, and until very recently I didn't know anything about pathology. I don't believe to-day we know any better how to explain the action of uric acid than we did a hundred years ago. I am indebted to the book the writer referred to, Haig, for most valuable information on the subject that I never understood until I got hold of that book. I think I do understand it now. I never began to get well until I followed the suggestions made by this writer. No one ever tried harder to get rid of anything than I did to get rid of this trouble. No one ever took physic more greedily than I did trying to get well, but the suggestions that this man makes, as soon as I adopted them I began to get better, until to-day, so far as I know, I am free from gout and can do as much work as I ever did. And his suggestion is very simple. Give up all meat, every variety of meat. I haven't touched meat for many, many months. Give up all coffee, tea, cocoa, because they contain uric acid. Drink milk. Give up eggs because they contain too much nitrogen. Drink milk, eat every variety of vegetable and fruit that you can get hold of. Don't hesitate to eat tomatoes; I eat them whenever I can get hold of them. I don't hesitate to eat an orange. I don't hesitate to drink whiskey when I want it, but fortunately I don't want it very often. Now, that is briefly the way I have recovered my health and gotten rid of this gout. I will suggest another thing, that the nervous system has a little more to do with it than we are disposed to admit. Although I had gout so badly and it lasted so long, attacking my eyes and making me blind for a little while, preventing my reading for weeks and weeks, although I have had it in both feet at the same time, and my knees were all swollen and deformed, suffering horribly, I haven't got on my fingers or toes a trace of it, I haven't got a trace of uric acid. And my gout usually came when I was run down, when I had too many sick people, when I had what every one of you have had, patients who gave me too much anxiety. Cases incurable I never troubled my mind much about after I concluded that nothing could be done, but in cases which could be helped, and a number of them, some-

times eight, ten or a dozen people who would die if I made a mistake, constant anxiety in those cases gave me gout. I never drank wine or beer or anything of the sort, never cared for them in my life, have always been a small eater, always glad to be able to take a small drink of whiskey, and I congratulate myself that I am able to do it now and it does not hurt me. I don't know about strawberries. I don't believe I earned the gout by high living. If I had I would have lost it, for I have lost everything else that I have earned. It must have been inherited. If it was it was the only thing I inherited that I held on to. I only speak about it because I have had so much personal experience. We might well look and see how much the nervous system has to do in this trouble. It has something more to do with it I think, than we are usually disposed to admit.

Dr. Paul Barringer.—There is one physical characteristic of gout that has been referred to that is so simple and has probably occurred to most of you, that I hesitate to refer to it, and yet in a purely accidental manner my attention was called to it. I refer to what the Doctor referred to as the finger and toe deposits. He will probably agree with me that the ear is frequently a source of deposit also. I wondered why the foot and the fingers and the ear should be the sources of deposit of uric acid salts. A few years ago a friend came to me and said that he had a hot water heater that wouldn't heat, that it was too small, he could get it up to 212 and it wouldn't heat any hotter. In a joking manner I said, "Saturate your water with salt and I think you can raise it to about 240." He did so and had very satisfactory results for three or four days. He came to me in very great distress and said, "My machine won't run." I investigated it and found his radiator solidly packed with sodium chloride and the water pure. When we consider that sodium chloride and other salts of uric acid enter the blood current at a temperature of 101 or 101½ or some point about that, we can readily understand that when the same blood enters the fingers and finger tips, cooling as it flows to 97 or 96, and so on down; or when flowing through your feet as you stand on a cold pavement, it becomes cooled to even 90, this fall in temperature permits a deposit of uric acid in the minute arteries of the parts. Those of you who on a cold frosty morning have felt the clip of a passing breeze, know the hypersensitiveness of the ear, and know how it is brought about by the negative circulation. I feel sure that it is the cause of the deposit of the uric acid salt in the fingers and toes. With regard to the joints, I have given the matter some thought, and I think that it is due to the fact that the circulation is purely superficial, and that there are in the joints no centers of heat production as is to be found in the muscles, that we have the surface of the joints cooler than the remaining parts of the limbs, and this deposit of uric acid salt around the joints is due to the same cause as that the uric acid entering the blood at 101 will deposit that uric acid at whatever point the circulating fluid passes below that temperature.

Dr. Upshur.—I would like to say a few words in conclusion and beg the indulgence of the Society for trespassing upon their time. I want to say

a word first with regard to the point the Doctor made as to milk as it is a nitrogenous food. I want to premise what I am going to state by saying that one of the things I have always had a horror of all my life was chemistry. It would have been better for me if I had not had this horror of chemistry. I don't ever attempt to look deeply into any chemical discussions or reason about those things brought about by chemical processes. My views with regard to milk not doing as other nitrogenous foods would do are based on two facts. The first is the fact of personal experience which after all is the best teacher. For many years, the last ten or fifteen years, I have at times suffered acutely with these unusual and irregular attacks of gout. Naturally they set me to thinking. Naturally this question of diet was a subject uppermost in my mind as a solution of this question, both because I believed that the legitimate solution of the problem lay in the direction of the diet, and secondly because I believe most profoundly in the Scripture injunction with regard to medicine, that it is more blessed to give than to receive, and therefore whenever you hear of my taking a dose of medicine you may know that I am in a corner and can't crawl out, so my gouty trouble was treated along the line of diet. Now, my experience with regard to milk, and I drink a great deal of milk, proves that it is the very best thing I can do in the diet line for my gout and I was at a loss to know why it was so until I came across this wonderful book of Dr. Haig's. I haven't read it all yet. It is very much like fruit cake, you must take a little bit of it at a time if you want to digest it thoroughly. I say this because it is so comprehensive and a man wants to ponder well what he says and digest it thoroughly, because he will constantly come back to it as a rich storehouse and find something exceedingly useful to him. I find that Dr. Haig lays down as a proposition certainly that milk promotes the alkalinity of the blood, this is the explanation of milk for this condition of things when I couldn't explain it before, and that is the reason why milk will do this as a nitrogenous food when other articles of food like a meat diet will not do it, especially the dark meats promote the development of uric acid in the system when milk does not because of the fact that it alkalizes the blood and at the same time tends to promote elimination through the kidneys. Now, there is another fact that is exceedingly interesting to me which Dr. Haig lays down, that in every system in the morning a cleansing should take place, that it is a time as it were of cleaning up the house. The urine is highly colored and there is a great amount of uric acid in the system. "The alkaline tide sets." The whole organism should get ready for the battle of the day. Then the question with regard to other articles of diet. The experience which Dr. McGuire gives with reference to tomatoes and oranges, which I touch *very cautiously*, shows that it is undoubtedly true that what is one man's food is another man's poison. Strawberries are absolute poison to me, and I have seen over and over again cases where they produced gout or brought it back after it had been seemingly cured. I assure you I would as soon touch poison as one of them. I have had little tingling,

gouty sensations in my fingers within an hour after eating an orange or tomatoe, or some acid vegetable or fruit. Now, I will go a point further, and this is a point in which I have to disagree with Dr. Haig. Relief doesn't always come in the line of a vegetable diet. There are conditions of the stomach which we might call vegetable dyspepsia with indigestion. You take the first step in the direction of lithemia and when you do that you at least negatively establish the fact that there is a retention of uric acid in the system, and interfere with its elimination and you may have well declared gout as a result of that condition. Now, there is no question of the fact, but that strain on the nervous system is a factor in its existence and in its potency, for the gout—not the gout that the Englishman has where he has his toes all swollen up and uncomfortable as a result of his high living—but where you have it in these forms and ill defined symptoms of lithemia. I like the term lithemia better than that of gout, and there is a distinction. Lithemia is American, gout is English, as a result of high living. Lithemia comes to the Americans from the tense condition of the nervous system. It is the old story of tuning the lute up to the point where there comes a rift, and the music is all mute. Many a man has died suddenly as a result of apoplexy or of organic heart trouble, and the trouble has been atheroma in the blood vessels of the brain or in some organic change, it may be simply the deposit of uric acid salt upon the valves of the heart, and primarily the cause of that man's death has been his lithemic condition. I believe there is nothing we should guard so carefully against as this nervous strain. Now, a curious fact, personally while I have had rarely or never any of the joints involved, I have scarcely got a joint in either hand that I haven't got the marks of lithemia, and in the ball of that thumb I have got a little globular mass that rolls around it like a marble when I press on it, and yet I have never had an attack of gout in my feet in my life. With regard to eggs, I would say it is true with these as with other articles of diet. Eggs have the reputation of being very digestible, but in my experience I have found them very indigestible. I constantly find patients who can't take eggs, they disagree with them and are a source of trouble. Finally, one word with regard to colchicum. No one here will deny its useful properties, because it exercises some elimination but I very rarely give colchicum to a patient. It is a thing that is apt to upset the digestion. Usually colchicum is objectionable to the stomach and I very much prefer to find a solution through other therapeutic lines, and the crystalized phosphate of sodium is peculiarly happy in its influence for the relief of these conditions.

Uricacidaemia as the Cause of Hay Fever and Asthma.*

By DR. JOHN DUNN, Richmond, Va.

REPEATED failures through several years to cure hay fever by treatment applied directly to the nose membranes, even when these were the seat of hypertrophies, polypi, etc., led me finally to tell patients suffering with this trouble that while their discomfort could be lessened by removal of the diseased conditions present in the nose, this local treatment would have no effect in preventing a recurrence of the hay fever. The pollen hypothesis had seemingly so many points in its favor that I was unwilling to admit that "hay fever" could be purely symptomatic of a more or less definite condition of the blood.

Bishop's book and papers first turned my attention to the connection between hay fever and uric acid. Haig's work on uric acid made a clearer understanding of this connection possible.

The following case was the first to lead me to examine more carefully than ever before into the possible causative relationship between uricacidaemia and both hay fever and hay asthma.

Mr. A., aged 46, consulted me in the winter of 1897 in regard to his nose. "Doctor, I want you to burn my nose. It is the only way in which I can get relief." This was the patient's introduction of himself to me. I asked him what was the matter with his nose. He told me it was "tight as a drum and pained him," "that he could get no air through it," could not get his breath. He was constantly blowing his nose and was evidently suffering considerable discomfort. "Why do you want it burnt?" I asked. "Because I get more relief in that way than in any other. In the past few years I have suffered almost constantly with my nose, which I have had burnt twenty or twenty-five times, and I have had something sawed out of it, but it has grown up again. I have a catarrh powder, which relieves me for a few minutes at a time." Examination of the nose revealed the turbinated membranes as swollen and tense as numerous old scars caused by the electro-cautery would permit them to be. There existed, however, some free air space in the nose through which he could "not get a breath of air." This fact, that there existed free air space in a nose which gave the sensation of being entirely closed, is one I have frequently noticed especially during asthmatic attacks. I declined to burn these membranes. I then inquired into the diet of Mr. A., who weighed 250 pounds, and found that it consisted almost exclusively of meat and quantities of beer. Regulation of the diet with administration of alkalis afforded entire relief from the distressing nose symptoms without any treatment of any kind being applied to the nose membranes, which on the old hypothesis that the source of the disease lay in these swollen turbinates would have required extensive reduction, either through the aid of acids or the cautery. Three weeks ago Mr. A. reported that his nose still remained comfortable. The results obtained in the case of perennial hay

fever were duplicated in the case of Mrs. F., aged 35, who for years had suffered from hay fever, whose manifestations as a rule were severest in the late spring months. Attention to her diet relieved the hay fever within a few days and far more completely than any intra-nasal treatment to which she had subjected herself. A letter from her husband received Oct. last, states that the relief obtained has been permanent. It must be understood that both Mrs. F. and Mr. A. have continued to follow the advice given them in regard to diet, etc.

When the regular hay fever season came in August, the influence of diet in the causation of hay fever and hay asthma was clearly demonstrated in several cases, some of which I shall here mention briefly.

The first case was that of Miss L., aged 16 who for several years had suffered severely from autumnal hay fever, which this year had been accompanied by asthmatic attacks of such severity that the greater part of the night before she was brought to my office she had spent gasping for breath. Examination of her nose revealed a typical hay fever condition, of the membranes, which were swollen, *pale*, and the seat of profuse clear secretion. In places the turbinates touched the septum. Posteriorly, the middle turbinate on the left side at its end formed a huge whitish oedematous swelling, polypoid in appearance, which was jammed so tightly against the septum that a snare wire could not be forced between them. There was a general oedematous and puffed condition of all the portions of the turbinates visible by posterior rhinoscopy. The young lady's eyes were read and watery. In short, there were present all the conditions, which those who believe in the mechanical origin of hay fever would rejoice to find, hoping by their removal to cure the disease. I next asked Miss L. what she had eaten for breakfast that morning. "Ham and bread" was her reply. And for supper last evening? "Ham and bread." "Were you helped to ham more than once?" "I suppose I was, as I am very fond of it." "What did you eat for dinner?" "Ham and bread again. I cannot touch any vegetables but corn and sweet potatoes, and I do not care for any meats except ham and veal." She drank tea and coffee sparingly. Such a diet as the above for a girl of sixteen who spent the greater part of her summer days idling about the house and reading, could but produce systemic derangement, and here it had caused hay fever and asthma as the sequel proved. A small portion of the swollen posterior end of the middle turbinate was removed with the cold snare. No other nasal treatment was given. The patient was forbidden to taste meat of any kind and to omit the use of tea and coffee. Twenty drops of the saturated solution of the iodide of potash after meals three times a day were prescribed. At the end of a few days the nasal condition was markedly improved and a week later the nasal membranes had returned to their normal condition. The puffiness and oedema had disappeared, as had the asthma and nasal discomfort. Even the huge swelling of the posterior end of the middle turbinate was no longer present.

The next case is one of hay fever with asthma. Mr. F., aged 28, a tobacco-nist, in his attention to business not infrequently would remain in his shipping office at work the whole night through. His custom was to eat his meals hurriedly and hasten immediately to his work. This mode of living had produced an anæmia, which from year to year was accompanied by hay fever and severe asthma. Mr. F. has been under my care from time to time for several years, during which I have had occasion to remove a few small polypi from the region of the middle turbinates. My treatment, except that applied to the nose, had been general and with no recognition of a possible dietetic origin of the trouble. About the middle of August, 1898, he called at my office one morning suffering greatly from asthma and a profuse watery discharge from the nose. He gave the following history. "Last Sunday I ate heartily and afterwards took a long bicycle ride. On my return I felt badly and my mother brought me a glass of some very sour wine and told me to drink it, saying it might make me feel better. I did so and early next morning my trouble began, and I have been growing worse ever since." Examination of the nasal cavities revealed no abnormalities save the characteristic œdema and watery anæmic appearance of the puffed membranes. There were no polypi present. The septum was straight. Acting on the supposition that uricacidæmia was the cause of the trouble, Mr. F. was treated accordingly and in a few days entire relief was obtained. No local treatment for the nasal mucous membranes was given. It is of interest to note here that Mr. F's father accompanied his son to my office. He was lame and walking with a stick, and on looking at his feet, I saw that from the right shoe the greater part of the upper had been cut away. "Gout?" I asked. "Yes, this attack has lasted now for some time. When I was a young man I suffered from asthma just as my son does now. Since the gout first attacked my toe, now a good many years ago, I have never had an attack of asthma. I have notes on another case in which the appearance of gout was followed by complete cessation of an asthma of many years' standing.

With the above cases before us it will be well for us to consider the most widely spread beliefs in regard to the cause of hay fever. The pollen hypothesis has had and still has many advocates, and yet frequently patients ask: "If my disease be caused by pollen why is it that —?" the remainder of the question varying and being seemingly unanswerable on this hypothesis. For example, Mrs. C., aged 50, a large, full-blooded, active woman, has suffered from autumnal hay fever for many years. In 1897 when the season of the year came around for her to have an exacerbation, i. e., the latter part of August, to her delight her nose remained comfortable, yet hardly had she congratulated herself when she was taken with "something resembling a congestive chill and was desperately ill for a few days." In talking to Mrs. C. about her case she told me of a friend of hers, and a great sufferer from hay fever, who had "had at the time the hay fever should have come on" a similar congestive attack, and that year she "had escaped hay fever."

Considering hay fever as a manifestation of uricacidæmia, these "congestive attacks" are susceptible of explanation; considering hay fever as a result of the action of pollen in diseased nasal membranes, we are at a loss to know why the latter case should have escaped hay fever during the season for it, when others in the same region were effected as usual.

LOCAL MORBID CONDITIONS OF THE NASAL MUCOUS MEMBRANE.

The rhinologist who would confine the origin of all intra-nasal troubles to the nasal cavities and their contents is the one which appeals most strongly. It is certainly true that in all cases at the time of the exacerbation of hay fever or asthma we find either abnormal or pathological conditions present in the nasal membranes; but that these conditions are the cause of the hay fever has never been proven. Again conditions similar to those found in the noses of hay fever sufferers, so far as the eye may judge, exist in the noses of people who have no hay fever. Or take the visible condition of the nasal membranes during the attacks of hay fever and during the long months when the hay fever is absent; no advocate of the pollen hypothesis claims that the nasal mucous membrane returns to normal after the pollen season is over. Some claim that curing the diseased, and I suppose that they mean the visibly diseased, intra-nasal tissues cures the hay fever.

Let us examine the visible conditions of the nasal membrane in a few cases of hay fever. Mrs. C., aged 50, above mentioned, has had hay fever in August and September for many years, and it always makes its appearance with an intense itching in a small mole situated on the face about three quarters of an inch from the left ala of the nose. Later her eyes began to water, burn and itch, and then the nasal trouble begins. I have had occasion to examine Mrs. C.'s nose, both during and between attacks; at the latter times I could find no condition existing for which I could in another person not suffering from hay fever, advise treatment of any kind. The septum is not perfectly straight and regular, but nowhere touches the turbinated tissues, which save for a moderate amount of puffiness (no hypertrophies) are to all appearances normal. During the attacks which are of great severity the swelling is never sufficient to entirely block the air passages. 2nd. The case of Mr. A., aged 35, in whose nose the only visible abnormalities were some tendency to puffiness of the turbinates. 3rd. Miss L., aged 16, seen at the height of attack, turbinates much swollen, the posterior end of the left middle turbinate so much so that forced as it was against the septum might if unrelieved have been the starting point for one or more polypi. The membranes returned to normal without direct treatment, save removal of a small piece of swollen turbinate. 4th. Mr. F., aged 28, had several small polypi springing from the superior turbinate, and some general hypertrophy of the turbinates posteriorly. Removal of the polypi and treatment of the hypertrophies did not prevent the recurrence of the hay fever and asthma.

The nasal polypi alone are not necessarily the cause of hay fever is shown by the fact that many cases are seen where nasal polypi, even in

large numbers, exist without it. That the reverse is true, I think there can be no doubt, viz: that whatever causes the hay fever acts so profoundly on the nasal mucous membrane that changes are brought about which result from time to time in the formation of polypi.

This can scarcely be denied by any one who has examined many cases of hay fever, for all stages of the development of nasal polypus can be observed.

The cases above mentioned, especially those of Mr. A. and Miss L. seem to show clearly that excessive meat eating may produce nasal troubles which in no demonstrable particular differ from the ordinary perennial and autumnal hay fever; that the visibly abnormal conditions and the discomfort accompanying them disappeared after regulation of the diet shows that what is put into the stomach has far more to do with the causation of some forms of hay fever and hay asthma than has any local morbid intra-nasal condition; that during the past hay fever season every case I have seen, which would follow out my directions in regard to diet &c., has either been relieved or much benefitted, and this while continuing to live without change of surroundings, making no effort to escape from "the pollen laden" atmosphere, seems to show that hay fever and hay asthma are food, not pollen, products.

In regard to the treatment of autumnal hay fever and hay asthma, little need here be said. Where the nasal tissues are the seat of the polypi, the latter should be removed. True hypertrophies and obstructing septal deviations and ridges or spurs and synechiæ demand surgical interference. The patient, however, should be told that this work is done, not to cure the hay fever, but because it will render the nose more comfortable, and would be required in any case. Physiologically, swollen turbinated tissues no more requires the assistance of surgery or the cautery in any of its forms, than does the patch of acute eczema or the œdematous ankle of bright's disease. The application of the cautery to the turbinated membranes swollen in an exacerbation of hay fever and as the result of uric acid irritation may give the patient some temporary comfort, but does not cure the hay fever, and does actual harm. During the exacerbation a camphor-menthol-albolene spray will give considerable relief. One's success in the prevention of the attacks of autumnal hay fever and in lessening their duration and severity when present will depend, however, first of all upon one's recognition of the facts that it is the result of improper eating and living, that it is neither necessarily the result of visible morbid intra-nasal conditions, although these may exist, nor of the action of pollen, although dust and pollen may have their influence in increasing the severity of the intra-nasal irritation, and lastly, that hay fever does not depend upon a "neurotic condition" or an idiosyncrasy.

Considering hay fever as the result of uricacidaemia the dietetic treatment should be accordingly. It is of the first importance that our patient should give up altogether eating meat for some time before and during the hay fever season. Such articles of food as raise the acidity of the blood and

thus prevent the excretion of the uric acid present in the blood should also be forbidden.

Haig has shown that meat, inasmuch as it contains uric acid is the article of food which, if used in excess, and especially if taken with substances such as wines, beer, tea, coffee, etc., which raise the acidity of the blood, will sooner or later produce uricacidaemia. Repeated attacks of uricacidaemia bring about irritations and inflammatory conditions in various parts of the body, and also in time produce changes whereby the power of excreting not only the uric acid introduced into the blood with the food, but that produced in normal tissue metabolism, is weakened. This latter should be borne in mind, as it helps to explain why the attacks of hay fever are, as a rule, more easily controlled by regulating the diet and by the administration of alkalies and tonics in the case of young than of older people. I am convinced, however, that the deleterious effect of a meat diet in the causation of uricacidaemia is not solely due to the uric acid it contains, for this is relatively small in amount. Meat contains elements that stimulate tissue metabolism. This metabolism results in the production, among other things, of uric acid. If now, this uric acid be for any reason not excreted, but retained in the blood; uricacidaemia results.

For calling my attention to this point I am indebted to Dr. J. S. Wellford, of Richmond, Va.

Coffee, tea, cocoa, acid wines and beer are, besides meat, the chief articles of food forbidden by Haig. Coffee, tea and cocoa have for their active principles substances identical with uric acid, and thus used as food, not only raise the acidity of the blood, but add uric acid to the amount already present in the blood. Acid wines and beer, which is also acid, not only raise the acidity of the blood, but result in increased tissue metabolism, which as above stated means increase in uric acid.

Eggs increase tissue metabolism. I do not mean to convey the idea that these substances should be forbidden to all the world as articles of food; but I do wish to say that in the treatment of uricacidaemia we should bear these facts in mind and make use of them accordingly; for we shall meet with patients where the strictest avoidance of all the above mentioned articles will conduce greatly to their well being.

If our patient is seen a few weeks before the hay fever season begins and will follow our suggestions in regard to diet, exercise, bathing, &c.; then, in young people a mild tonic is all the additional treatment necessary; if the young patient come under care first during the hay fever season, an alkali in the beginning in considerable doses will be required. In older people the success of such treatment, while striking, is not always successful. Why? Probably because after repeated attacks of uricacidaemia when the general tissue changes are great and when the power of excreting uric acid formed in the normal tissue metabolism is lessened, their result changes, whereby enough uric acid is retained in the blood to bring about uricacidaemia. It is important to bear this in mind or we may attri-

bute our failures to the wrong cause. As a rule, the older the patient, the more he has lived up to the notch of a meat and acid diet, the more difficult do we find the hay fever, exacerbations to control.

In cases of perennial hay fever and asthma, our problem is vastly more complicated, for we are dealing with the conditions of the blood, in which precipitation of uric acid takes place with great ease, and in many of these cases tissue metabolism is so imperfectly accomplished that the result is conditions which perpetuate a chronic uricacidaemia. The question is then no longer of a meat or vegetable diet, with the administration of tonics or alkalis. We have to regulate the organs which excrete uric acid and thus prevent its undue accumulation in the blood. We have to restore the normal tone to general tissue metabolism which regulates the condition of the blood, and at the same time the relative ease, or difficulty, with which uric acid is precipitated into the tissues. Anxiety, fright, over-exertion, want of proper bodily exercise, interference with the functions of the excretory system, whether through causes organic or functional, food, the relative constituents of which are unsuitable to the mode of life, and many other things which to begin to mention would take us too far afield, all have their influence in bringing about uric acid precipitation.

Thus we see the problem of affording relief may be vastly complicated. It is not, however, always so, and if we bear in mind that hay fever and asthma are but manifestations of uricacidaemia and treat our patient accordingly, while we may have failures, we shall also have successes.

DISCUSSION.

Dr. J. N. Upshur.—I don't know any one who could read upon such a subject as this whose statements would command greater respect and attention from me, than my friend Dr. Dunn. I know how careful he is in his reasonings, how careful he is in stating a conclusion unless he has just cause for that conclusion, and it is not with the intention of criticising him, but simply because there are some few things in connection with hay fever that are not, even with his clear reasoning, perfectly clear to me, no doubt due to my inability to grasp the subject as I should. One of these facts is a very new and interesting fact, that hay fever may be due to excess of uric acid in the blood. It is very easy to understand how it can be due to uric acid when we remember that one of the manifestations or conditions of that trouble is seen in itching which we have about the nose, evidently when there is too much uric acid in the blood. But the point which interests me particularly in connection with this and which I do not understand, is that patients who are subjects of hay asthma, if hay asthma is due to an attempt of elimination of uric acid through the mucous membrane, why these patients should have the same conditions existing in the same system, and yet have hay asthma only at certain seasons of the year. Now, I have a lady patient who has been a subject of hay asthma for a great number of years, who no doubt is more or less lithemic, who has had manifesta-

tions of lithemia or gout at other seasons of the year. But where there is nothing special in the food to develop this hay asthma, yet regularly at the given day in August each year, and year after year, often without any premonition, will develop the symptoms of hay asthma. I have known this lady under conditions where the diet has been exceedingly abstemious, where she has been traveling or at sea for hours and taken no food at all. A week subsequent, on the 22nd day of August, without any premonition, entering the sleeping car to leave the city, she sneezed and hay fever came on and lasted for six weeks. Now, I think if it can be explained on this line, and if the treatment which is to effect a cure can be effected from a dietetic standpoint, we are very much indebted to these gentlemen who have carefully and honestly and with marked ability pointed out this new road toward health. If you gentlemen have seen this sort of thing, you know there are few things that have caused greater suffering. That is the difficult point for me to understand with regard to hay asthma, and I would like very much for the doctor to explain why they do not have these phenomena at other seasons of the year, why they are developed simply at the hay asthma season from the presence of uric acid, when it seems to me that if this be the cause they should have this trouble in any other month of the year,—January, February, or any other month.

Dr. Dunn.—The patient to whom you refer, Doctor, does she never have hay asthma except in August?

Dr. Upshur.—This lady is a patient of the doctor's, let me say, and has as much confidence in him and admiration for him as I have. She has had slight manifestations of hay asthma in June, but not with the same regularity that she has had in August. Since sitting here, one thing has suggested itself to me as probably a cause of this manifestation in June, and that is, that she is exceedingly fond of strawberries, and probably my theory of strawberries may there have come out, but at other times of the year, the same conditions existing, this lady, who is also a patient of mine, has no manifestations or indications of hay asthma, and yet for twenty-five years she has had this same manifestation of hay asthma in August. She has had hay asthma and been at sea for a week and lost it entirely. Of course, the dietetic element would come in there, because she was taking no food while at sea, but the moment she landed the symptoms of hay fever have returned, and that is a thing I am interested in. It is for information and arriving at some happy issue in this matter that I want the Doctor to arrive at some conclusion that I can grasp.

Dr. Dunn.—I don't know that I shall be able to explain this seeming peculiarity of the attacks of hay fever to the Doctor's satisfaction. The point occurred to me, and I put it in this paper, but felt the paper was too long and cut it out, but I will make an attempt at an explanation. During the hot weather, when the days and nights are both warm, when there is nothing to prevent an active perspiration, the patient who is lithemic is able by exertion, by the action of all the excretory organs, to get rid of the excess of uric acid.

I can see, however, that when this is done, it leaves no reserve force in the matter of excretion for the excretory organs. About the middle of August the nights begin to get cool, the person may not be conscious of this fact, but at the same time the overworked skin glands do feel it, and it is their failure to eliminate the uric acid that they have been eliminating under high pressure, as it were, during the hot summer, that brings about this attack. And why the attack should be seen in the nose it is not difficult to conceive when we remember how many people in their early childhood suffer from nasal troubles. I could tell you of a very interesting case in this connection just here, but will say that so far as I am able to judge, the autumnal hay fever occurs about the same time every year.

Dr. Jos. A. White.—It is a little out of order to make remarks upon a paper when the author has practically closed the discussion, but I understand Dr. Dunn was simply answering a question. The theory Dr. Dunn has just enunciated, is of practically recent origin, since the investigations as to the effect of lithemia and its various manifestations, is simply the new explanation of what is the causation of the development of hay fever, but I have no doubt in the world that experience has demonstrated that it has a very good foundation in fact, but by itself displays all the various phases and manifestations of those reflexes that we meet with in connection with nasal troubles. For instance, as I understand Dr. Dunn to state, that he has practically drawn the conclusion that hay fever is to be ascribed to a neurosis, and I think in that respect his paper is what I would have expected from him, but I don't think he has drawn exactly a correct conclusion.

Dr. Dunn.—I may have said that, but I am willing to admit that the conclusion may not be correct.

Dr. White.—I have had considerable experience in these cases and I am very familiar with the theories trying to explain these peculiar mysteries that we meet with all the time in the practice of medicine, of which we have no satisfactory explanation, and to-day they haven't any satisfactory explanation. We are always trying to form theories that we work out, and we always come sooner or later to some stumbling-block that won't accord with our theories, and we pass over these to look for something else. This is not only true as regards hay fever arising from the spores of plants, or some blood alteration like uric acid, but it applies to other things besides hay fever and asthma. Now, I am satisfied that it is the cause of a great many attacks in the case of hay fever and ordinary asthma, that it is not periodic, which we do not call hay asthma, but I am satisfied also that the true explanation of it is, from whatever cause, I don't care whether it is irritation that started out with symptoms, I don't care what causes this, it is after all the neurosis theory that is always the best. It is always going to have a foundation. I don't care what else you add to it, it always comes back to one single thing, and that is the weakness of the nerve centers, the weakness of the reflex sub-centers that allows these peculiar manifestations as to the result of any irritation, and the result of hay fever is too well known a fact for anybody to

dispute. I have seen an attack of asthma, a violent attack of asthma; ~~an~~ attack that did scare me more than the patient because the patient ~~has~~ had them often, I thought the patient was going to strangle in my office. All of us have had that experience. Why should touching some point of irritation in the nose cause a violent attack of spasm of the bronchial tubes? Yet I have seen it repeatedly. That isn't because there is uric acid in that man's blood. He has uric acid there all the time if he has it at all. There is no more reason why touching his nose should give him that attack than touching his toe because of uric acid. It is because the respiratory tract, when irritable in this way, is controlled by sensitive nerves immediately conducting that impression to a sub-center that we find this peculiar manifestation or characteristic. I don't doubt that uric acid may be the cause that has weakened these centers so that they are easily affected by an irritation, because if they had not lost ordinary resistance there would be no reflex manifestation of neurosis. The same thing applies to periodical attacks. Why is it that we have every now and then an influenza that propagates itself all over the country in every direction? Why don't we have that sort of thing all the time when a man has a cold in his head? Because of peculiar atmospheric conditions. It doesn't attack everybody. It may attack me, and my neighbor escapes. Because I am not immune from whatever it is that propagates the trouble. So it is that these people who have these weak centers are affected at certain seasons of the year by certain atmospheric influences.

Dr. Robinson.—I hate to get up so often, but this is a subject in which I am very much interested. I was for twenty-five years a subject of hay fever myself, and I have suffered a good deal at the hands of Dr. White, both of torture and of relief. The paper of Dr. Dunn impressed me very much. For twenty-five years I sought the sea coast and the sea air for relief, and it usually gave me immunity while I was there. The inference would be that there was some atmospheric cause at work that from the 20th to the 30th of May provoked these attacks. That doesn't necessarily imply that uric acid conditions underlying my nose locally have gotten my nose in a condition to make it more irritable to atmospheric causes. Not only that, but a statement from Dr. Upshur bears out the fact that although when I did go to the seashore and come back, if I would eat fruit I would immediately have an attack, even before I got through. For twenty-five years I was subject to urinary troubles and uric acid diathesis. For three years I have taken alkalies when I was dieting myself pretty regularly. In that time I have not had any recourse to sea air and I haven't had any hay fever.

Dr. Dunn.—I simply want to say this in regard to neurosis. Dr. White and myself are in accord in our views in regard to it. What I meant by saying that hay fever is not a neurosis is that the severe impression made by the irritation of the uric acid on the mucous membrane of the upper air tract, this irritation may be so great that such an impression may be made upon the centers that neurosis may result. Hay fever is not a neurosis itself, although the excessive irritation of the mucous membrane may make such an impression on the nervous center as to cause a neurosis.

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Editorial.

THE COMMISSION EVIL.

The medical press of the country has been more or less exercised for the last few months over the so-called commission evil. Articles have been published asserting the fact that many specialists in the large cities, particularly surgeons, were in the habit of paying a certain portion of their fees to the general practitioners who referred cases to them for operation or special treatment.

It was even stated that physicians had been known to "hawk" their patients about from one specialist to another in order to get the best commission possible for themselves, finally turning their human merchandise over to the highest bidder.

We are inclined to believe, with the *Medical Record*, that such instances have been the exception and not the rule, while admitting that in some sections this practice has gained ground. This view is strengthened by the belief that, although men in cities doing special work in the face of strong competition, may now and then fall a victim to their avarice or ambition, there are few classes of our citizens more honest and straightforward in their dealings with their patrons than the family physician. Hence, if this be, as some declare, a wide-spread evil, we are forced to the conclusion that this large portion of our profession is commonly actuated by sordid motives and untrustworthiness. That such is the case, no well informed person would for a moment believe. On moral grounds we do not see that the acceptance of such a commission could be justified, unless it be taken with the knowledge and consent of the patient. Any other arrangement would have in

appearance, as it would be in fact, a secret combination for the spoilation of the third party—the sick man.

In this connection, Dr. Morris, of New York, in a communication to the *Journal of the American Medical Association*, says :

“Payment of commissions would undermine the very pillars and foundation of responsible medical service, and would instantly bring us down into competition with charlatans. It is apparently a fact, however, that the commission evil has gained a foothold in a small part of the country, and perhaps very good land has been invaded by the Russian thistle. In order to keep reputable specialists who are subjected to the unfortunate influence of the commission evil, I propose that at the next meeting of the American Medical Association a resolution be adopted to the effect that any practitioner of medicine who gives or receives a commission for cases referred to or by him, shall be expelled from membership in the Association. I also propose that specially printed, conspicuous cards bearing a copy of this resolution be given to the secretary of the Association for distribution to applicants. Any one who needs to protect himself can display the card in a manner suitable to an occasion.”

The editor of the *Medical Examiner*, Dr. Geo. A. Wells, of New York, has attempted to defend the position of the man who gives and receives commissions, by the supposed analogous customs of lawyers, and on the ground that the general practitioner will advise his patients to seek special treatment more promptly when it is necessary, instead of attempting to hold the case as long as possible in the hope of making a larger bill. In the same editorial he gives vent to a tirade upon the Code of Medical Ethics, which he pronounces “old fashioned” and obstructive. For this, and his position in the commission business, he is very properly “roasted” by the *Philadelphia Medical Journal*.

We are persuaded that the commission evil is merely a question of moral and ethical interest to the physicians of this section of the Country, as we have never heard of any instance where it has been put into practice, and we are confident that ninety-five per cent. of the medical men who read this article would instantly pronounce the clandestine receiving of a commission as not only unprofessional but dishonest.

The editorial work on the NORTH CAROLINA MEDICAL JOURNAL is to a great extent “a labor of love” but at the same time the necessary expenses of such a publication are not small, and the recent improvements in the JOURNAL have added considerably to its cost. From time to time new features will be added (incurring additional expense) in the effort to materially raise the standard of the JOURNAL. The “rank and file” and the “officers” of the profession in the Carolinas will compare favorably with those of any other State, and if we can enlist their hearty co-operation in our attempt to make the NORTH CAROLINA MEDICAL JOURNAL highly useful and creditable, success will have already crowned our efforts.

We accept as a part of our mission the development of our "home talent," abilities of no mean order, that are now lying dormant. We believe our readers would prefer more "home-made" papers, and we take it upon ourselves to stir you up to the discharge of your duties. Our business man says "don't overlook the little matter of your subscription;" it is not much to you, but when added to others, it means a great deal to us.

If you are not a subscriber, we respectfully solicit your subscription and your influence.

Correspondence.

To the Members of the Medical Society of the State of North Carolina:

As the Secretary has had a number of letters from members of the Society in regard to the Transactions for 1898, some public statement concerning them is doubtless admissable on his behalf. Dr. R. D. Jewett has had the minutes and papers of the 1898 meeting since last summer, he assumed all responsibility for their publication and distribution as he was Secretary for the last meeting and one of the Committee on Publication, all of which was eminently fit and proper and the purpose of this notice is simply to mention the facts in the case. All credit in regard to the Transactions for 1898 is due Dr. Jewett and to him all complimentary communications concerning them should be sent.

GEO. W. PRESSLY, M. D., Secretary.

EXPLANATION BY DR. JEWETT.

In explanation of the long delay in the appearance of the Transactions, a copy of which we feel assured has by this time reached all those entitled to receive one, I beg to state that I had no instructions from the Committee on Publication to proceed with the publication, until a batch of the papers read at the meeting of the Society was mailed to me by the Secretary, together with a letter stating that I would probably need these papers in publishing the Transactions. This was more than sixty days after the meeting of the Society, though I wrote the chairman of the Committee offering to do the work. After this, more time was lost in the effort to secure some reports made to the Society, some of which were never received and do not appear in the printed Transactions. The greatest delay, however, was due to the fact that when the printed matter was nearly ready for the binders, the concern having the contract for the printing received a rush of other work, and the Transactions were shoved aside. Promises were made and renewed at each interview with them that the work would be soon completed. Had it not been for the fact that a considerable advance in cash had been made to the printers, which I could not afford to lose, the work would have been thrown upon their hands and a new contract made with other parties. This, however, would have delayed the appearance of the volumes longer still. I assure all those who have been annoyed by the delay that it has caused me untold annoyance, and I trust that they will not allow their "communications" to be too (satirically) "complimentary."

Very respectfully,

ROBERT D. JEWETT.

News and Items.

The second copy of the *Southern Medical Journal*, published by the versatile Dr. J. W. P. Smithwick, of LaGrange, N. C., is on our table. Dr. Smithwick is a clever writer and hard worker, and we wish him abundant success in his new field of labor.

Commendable Action on the Part of the Tri-State Med. Asso. of Ark., Miss. and Tenn.—At the regular meeting of this society held in Memphis, Tenn., Dec. 20th, 21st and 22nd, the following resolutions were adopted:

Whereas, the medical laws of the various States have been so perverted by political influences as to give legislative sanction to grotesque, ignorant and dangerous sects of pretenders and charlatans; and

Whereas, the privileges granted to one of the most outrageous aberrations, namely, the so-called Osteopathy, constitute a disgrace to the States in which the "Osteopaths" are legally intrenched; and

Whereas, a certain William Smith, Osteopathist, having been roundly denounced, together with his sect, by Parke, Davis & Co., and the *Medical Age*, now brings suit against both for \$25,000.00 damages; therefore

Be It Declared the sentiment of the Tri-State Medical Association, of Mississippi, Arkansas, and Tennessee, that Parke, Davis & Co., and the *Medical Age* are entitled to the sympathy of its members and of all medical practitioners; that we wish and expect them to enjoy a complete triumph in repelling this legal assault; and that wheresoever a powerful House takes a bold stand in opposition to quackery it promotes the interests of legitimate and honorable Medicine and the welfare of humanity.

The North Carolina State Medical Society meets in the hospitable city of Asheville, May 30, 31, June 1 and 2. This date was selected by the Asheville Medical Society after due conference with the president and secretary of the State Society. The Battery Park Hotel will be headquarters, in fact, the society will meet in its spacious ball room.

The committee of entertainment obtained a rate of \$2.50 per day at this hotel for members of the society and visitors.

Asheville is at all seasons a delightful place to visit, but at this season when the grand old mountains are freshly clothed in green and the mountain ivy and other shrubs and flowers are in bloom, it is of all towns in the State the most inviting, and we anticipate a full attendance and a pleasant visit to the Land of the Sky.

Congratulate You, Gentlemen.

A house that is committed to a policy of *Medicamenta vora*—to quote its own motto—deserves success, hence when it finds itself compelled continually to enlarge its borders, it is a standing rebuke to those who would practically deny that "Honesty is the best policy." Indeed, the products of Parke, Davis & Co. are so thoroughly and warmly appreciated by the medical

profession that this famous exponent of the "gospel of good goods" has frequent occasion of late either to build new home laboratories or to multiply its distributing points.

In proof of this, attention need only be called to their manufacturing laboratories in Walkerville, Ontario, and in London, England, which assist in more promptly supplying their Canadian, English, European, East Indian and Australasian trade, while with a similar object in view, Parke, Davis & Co. maintain branch establishments in these United States in New York City, Kansas City, New Orleans and Baltimore—each one of which has been obliged to seek more room than was deemed necessary on its original installation. Their flourishing Baltimore Branch is the latest instance.

Although only established in 1896 in what was then considered very spacious premises, the increased volume of business has thus quickly made it imperative to seek larger quarters. A "Removal Notice" from the gentleman in charge of this Branch, Mr. O. W. Smith, informs us that its new and commodious home is now to be found at 103 E. German street, Baltimore, Md.

We cannot do *less* under the circumstances than extend our congratulations to Parke, Davis & Co., for this substantial evidence of the rapidly growing popularity of their preparations amongst the physicians and pharmacists in the populous district tributary to Baltimore. We cannot do *more* than say that we have long since come to consider their products as our "*Ultima Thule*" of therapeutic efficiency.

Celebration of the 50th Anniversary of Philadelphia County Medical Society.—By Philadelphia correspondent of N. C. MEDICAL JOURNAL.—The celebration of the 50th anniversary of the Philadelphia County Medical Society occupied the evenings of Jan. 14th, 15th and 16th. On Saturday evening, Jan. 14th, the society met in the hall of the College of Physicians and listened to a most interesting and eloquent oration delivered by the brilliant young surgeon, Dr. J. Chalmers Da Costa. Dr. Da Costa's manner of delivery as well as what he said gave him a most attentive audience. He began by picturing in an interesting manner the conditions, political, social, and medical existing at the time of the founding of the society in 1849. He reminded his listeners that Victoria had been queen of England but 12 years, that Gladstone was then a Tory, that Louis Napoleon was the president of the French Republic, Macauley was writing the third volume of his history of England, Thackeray was writing *Pendennis* and Dickens, David Copperfield. The United States numbered but thirty States, California being the most recent acquisition, and the orator here amusingly referred to the opposition at that time displayed by many public men of prominence to the policy of territorial acquisition. The Senate of the United States was filled with statesmen, with law makers, not law sellers, among them Webster, Clay, Benton, Calhoun, Douglass and Cass. Philadelphia possessed at that day many eminent men whose names will not soon be forgotten. Geo. B. Wood, professor of Physic at the University of Pennsylvania, John K. Mitchell, professor of Practice at Jefferson Medical College, Nathaniel Chapman of

the University, the wit of his day, who had stories for the parlor and stories for the students, Joseph Pancoast of Jefferson, the master of surgery, William Gibson, professor of surgery at the University, Charles D. Meigs, professor of obstetrics at Jefferson, Robley Dunglison, Thomas S. Mutter and many others. Of the charter members of the society only one survives, Dr. Alfred Stille. To-day, the society has a membership of over 700. The history of the contest over the admission of women to membership in the society was amusingly told, it lasted from the sixties to 1888, when the first woman was admitted. In 1868 a resolution was adopted that no member of the society should consult with a woman physician or hold a chair in the Women's Medical College. (To-day there is a large number of women in the society and one is on the Board of Directors; and two at least of the Presidents of the Society were professors at the Women's College while holding office). The orator closed with a comparison of the means now at hand for relieving the sick and injured with those enjoyed by the founders of the society. On Monday evening, 16th inst., more than 350 members attended the banquet at Horticultural Hall, with many distinguished invited guests from Philadelphia and neighboring cities.

Dr. S. Solis Cohen, vice-president acted as president and toast master in the absence of Dr. Edward Jackson. The toast "Our Founders" was responded to by letter from Dr. Alfred Stille, the aged and distinguished founder, who began by saying that the father of the society was the American Medical Association, its mother the Pennsylvania State Society, that it was conceived on December 18th, 1848, and born on January 16th, 1849, and that he witnessed both conception and birth. He then pictured the early days of the society and its rapid growth as to members and influence. Dr. W. W. Keen responded to the toast. "The Philadelphia county Medical Society," and was frequently applauded. The toast next offered was, "The Medical Journal," and was responded to by Daniel Baugh, president of the Philadelphia Medical Publishing Co., which owns and publishes the *Philadelphia Medical Journal*. He said, that a Medical Journal should contain all news interesting to medical men and not only scientific articles. He also laid stress on the fact that it was the duty of the medical journal to keep up the tone of the profession and not lower it by advertisement or articles that were unworthy of it. Mr. Talcott Williams, of the Philadelphia Press, responded to the toast "The Newspaper," he was very energetic and very witty. The response to the toast, "The Clergy," by Rev. Charles Wadsworth, Jr., produced more laughter than any other. Dr. Jacoby, of New York, was present as a guest and gave his views on the duties of the Society and Medical Education.

Compensation for Slip-Shod Methods.—A physician in speaking of the business side of the practice of medicine says: "A doctor will trust people longer and more foolishly than any other person on earth. He will go on trusting people for years, until they leave him on account of hating him because they have owed him so much and so long. Then they will go to another physician and pay him with little or no hesitancy."

Book Reviews.

Annual and Analytical Cyclopædia of Practical Medicine. By Charles E. de M. Sajous, M. D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with chromo-lithographs, engravings and Maps, Vol. II. The F. A. Davis Company, Philadelphia. 1899.

This volume embraces from "Bromide of Ethel" to "Diphtheria." While in the first volume most of the sections were prepared under the supervision of the editor and submitted to the various members of the associate staff for revision and correction, this volume inaugurates the regular plan of the work as regards elaboration, all of the articles having been prepared by their respective editors. Many of these articles assume the importance of essays, so complete are they. As in the first volume, the main text is in large type, the excerpts being in smaller type, and the literature of 1896 and 1897 separated. This volume contains many valuable articles by prominent men, and differs in this respect from the usual "annual" which contains merely a collection of condensed abstracts from journals published during the preceding year.

It will be remembered that the present work supersedes the annual of the Universal Medical Sciences, which was formerly edited by Dr. Sajous. The *Monthly Cyclopædia of Practical Medicine* is furnished free to subscribers of the *Annual* and serves as a monthly supplement to the larger work.

Dr. Sajous deserves the thanks and support of the profession in the excellent work in which he is engaged. The possessor of the *Analytical Cyclopædia* will be kept informed in regard to recent developments in all branches of medicine. Matters of importance which are too late for appearance in the *Annual* are noted from month to month in the *Monthly Cyclopædia*.

A Text-Book of Mechano-Therapy.—(Massage and Medical Gymnastics). Especially prepared for the use of medical students and trained nurses. By Axel V. Grafstrom, B. Sc., M. D., late Lieutenant in the Royal Swedish Army, late House Physician, City Hospital, New York; with eleven pen-and-ink sketches by the author. Octavo, pages 140. Price, \$1.00 net. W. B. Saunders, Philadelphia, 1899.

The author has presented, in the volume before us, a very interesting and well-prepared essay, in which the methods of and indications for massage are carefully and scientifically discussed. The illustrations are from pen-and-ink drawings by the author himself and are well executed. The system practised by the Royal Gymnastic Central Institute, Stockholm, Sweden, has been principally followed, with such modifications as are recommended by prominent teachers and authorities of this science.

A Compend of Human Physiology.—Especially adopted for the use of medical students. By Albert P. Brubaker, A. M., M. D., Adjunct Professor of Physiology and Hygiene in the Jefferson Medical College, etc., etc. Ninth edition, enlarged and revised, with new illustrations and a table of physiologic constants. Price, 80c. P. Blakiston's Son & Co., Philadelphia, 1899.

While there is not much new to incorporate in this volume, still the author has taken advantage of the opportunity to improve the style of the preceding editions in some particulars. The work is not in the form of questions and answers, but treats the subject in a brief, succinct manner. Along with others of its kind, it will prove very useful to students preparing themselves for examination, and for general practionars who desire to briefly review the subject of physiology.

The Phonendoscope—and its practical application, with thirty-seven illustrations. Translated by A. George Baker, A. M., M. D., Physician in chief of the Chinese Medical Dispensary, Philadelphia, etc. George P. Pilling & Son, Philadelphia, 1898.

This is the day for exactness in methods of diagnosis and the many instruments which are being constantly invented do much to aid the physician in arriving at correct conclusions. The phonendoscope, introduced at the International Medical Congress at Rome, by Dr. Bianchi and Dr. Bazzi, has proved itself a most useful instrument for semiological examinations, and while we think the importance attached to it by the authors of the articles in the volume before us is rather exaggerated we do think that it will be a great aid in the determination of pathological conditions in the thorax. The book is intended to make the instrument more popular and gives full instructions in the method of using it.

A Story of Southern Life by a Southern Author.—From the press of Edwards & Broughton, Raleigh.

"Under Golden Skies, or In the New Eldorado," is a story which has for its object the laudable ambition of extolling the beauties and resources of the Old North State in general, but more particularly of the twin city of Winston-Salem. To one who has ever visited the quaint old Moravian town, and fallen under the spell of its old-time structures and bosky by-ways, this renewing of acquaintance will be especially acceptable.

So cunningly has the author coated the bits of information with the personal element, that one swallows and assimilates facts almost unconsciously, and we wonder that more liberal doses were not given, considering the abundance of supply.

The book is one that will go far towards arousing fresh interest and enthusiasm for our State, and should be in the hands of all our youth. As an addition to a Sunday School Library, it would be a valuable acquisition, as all the characters are noble, whole-souled men and women—in most instances drawn from life. While the plot might have been deeper, and the incidents more exciting, the aim of the author has been kept in view—"to aid in setting the good State aright before those who know her least," and after reading the good words in her defense, who is there "with soul so dead," who would refrain from magnifying her on every and all occasions?

Cataphoresis—or Electric Medicamental Diffusion as applied in Medicine, Surgery and Dentistry by William James Morton, M. D., author of "The X-Ray or Photography of the Invisible."

This work from the press of American Technical Book Co., N. Y., is a large 8 vo. volume of nearly 300 pages richly illustrated, bound in Half Morocco with Gilt Top and is admirably executed.

The contents are: Part I, Historical. Part II, Physics and Physiology. Part III, Apparatus and Outfit. Part IV, Application in Dental Surgery. Part V, Application in Medicine and General Surgery.

To praise Dr. Morton's work and to state that the book deserves a careful perusal by every practitioner of medicine and dentistry is but stating the truth of the merit of the volume. Many learned writers upon electricity make clear the underlying principles of electrical science and discourse satisfactorily upon its more complex problems, but they lack clearness in that portion of the field lying between the simple and the complex. This cannot be said of Dr. Morton. The

reader who follows the Doctor's exposition of Ohm's law will be much pleased with the cleanness of his demonstration; and what is said of this is true of the whole book which is a model in clearness of explanation and demonstration. In this work Dr. Morton has given to the profession a truly scientific and practical treatise on a subject that is attracting considerable interest. Beginning with its history the subject is carried forward step by step, the necessary apparatus described and its application in medicine, surgery and dentistry clearly taught closing with a chapter devoted to its application in microscopic work. The volume covers the whole subject and owing to the acknowledged ability of the author in this special field of labor it can be taken as a reliable guide and authority by the surgeon and dentist, in fact it is indispensable to all who use electricity as a remedial agent.

Saunders' Medical Pocket Formulary.—With an Appendix. By William M. Powell, M. D., author of "Essentials of Diseases of Children," etc. Fifth edition, thoroughly revised. W. B. Saunders, Philadelphia, 1899.

This volume is bound in flexible leather with flap and pocket. It has a convenient thumb index. Ready-made prescriptions are furnished for a large variety of diseases being arranged alphabetically. Besides these there are numerous tables for reference, among them a table of doses, incompatibles, gargles, the eruptive fevers, etc. A "surgical remembrancer" is a most useful part of the book.

Announcement of Importance to Every Physician.—Lea Brothers & Co. announce for publication in March, 1899, the first volume of **Progressive Medicine**, a new annual which will be issued in four handsome octavo, cloth bound and richly illustrated volumes of about 400 pages each. The several volumes will appear at intervals of three months. In this age of unusual progress, so rapid is the advance of medical and surgical science that the need for condensed summaries which shall keep the practitioner up to date at the least possible expenditure of valuable time has become imperative. The publication will receive the careful supervision of the general editor, Dr. Hobart Armory Hare, whose reputation will everywhere be acknowledged as ensuring practical utility in a high degree. With the appreciation of the self-evident utility of such a work to all practitioners, the publishers are enabled to ask the very moderate price of \$10 for the four volumes. The publishers offer to send full descriptive circulars and sample pages to those applying for them.

Antivivisection Tales.—The annual meeting of the American Antivivisection Society was held in Philadelphia last week, and the usual batch of misstatements was served up for the delectation of all old ladies and cranks present. One of the speakers, a physician, made the incredible assertion that he had personally witnessed the inoculation of forty patients at the Vienna General Hospital with the germs of syphilis, for the purpose of studying the initial lesion. He said the patients were from the peasantry. The speaker was flatly contradicted by other medical men who had studied medicine in Vienna, and who denied that such a thing could occur there or in any other medical school or hospital.

A NEW TABLET

By all druggists or sent by mail on receipt of \$1.00.

WM. R. WARNER & CO'S

Nervitone Tablets

(Trade Mark)

R	Phosphorus,	1-100 gr.
	Ferri Carb.	1½ grs.
	Asafetida,	½ gr.
	Ext. Sumbul,	½ gr.
	Ext. Nux Vomica,	1-10 gr.

Dose—2 tablets before meals for adults.

TAKE NO SUBSTITUTE.

PHOSPHORUS "It exists mainly in the nervous centers in the form of a peculiar compound with fatty matter, which has been named 'protagon' just as iron is united with haematin in the blood. It forms more than one per cent of the human brain."—Hughes.

Phosphorus is a stimulating nerve tonic, and in suitable cases a true tissue food in every sense of the word.

IRON is added for its general tonic effect and for its action on the blood, which is generally impoverished in the conditions just mentioned.

ASAFETIDA has been proven of value in nervous irritability, and is a stimulant to the alimentary tract.

EXT. SUMBUL The following has been written of Sumbul. "On the nervous system Sumbul acts as an efficient nerve tonic."

EXT. NUX VOMICA A bitter tonic, universally used for its influence on the nervous system.

By glancing at the above it will be seen that in Nervitone tablets we offer a combination of well-known nerve tonics and stimulants. It is a tablet that will cover a wide field of usefulness in physicians' prescribing. When the indications are for a prescription to correct conditions due to asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone tablets a remedy which will give satisfactory results.

The drugs used in the manufacture of this pill are pure and active.

Specify Warner & Co. to obtain satisfactory therapeutic effect.

SUPERIOR TO PEPSIN OF THE HOG
INGLUVIN
A Powder—Prescribed in the same manner, doses and combinations as pepsin.
A SPECIFIC FOR VOMITING IN GESTATION IN DOSES OF 10 to 20 Grains.

WM. R. WARNER & CO. 1228 Market St., Philadelphia.

New York.

Chicago.

London.

When writing, mention the N. C. Medical Journal.

Reading Notices.

A VERY GRAVE ERROR.—The experience of the best men of the profession, not only of the United States but abroad, has established the clinical value of antikamnia. Among those who have paid high tributes to its value and who occupy positions of great eminence, may be mentioned Dr. J. Acheson Wilkin and Dr. R. J. Blackham, practitioners of London. They have found it of value in the neuralgias and nervous headaches, resulting from over-work and prolonged mental strain, paroxysmal attacks of sciatica, brow-ague, painful menstruation, la grippe and allied conditions. Indeed the practitioner who has such cases as the latter come under his observation, who attempts their relief by opiates and stronger drugs, when so efficient an agent can be used, which is much less harmful, commits a grave error.

Experience goes to prove that ten grain doses of antikamnia in an ounce of sherry wine, taken every two to four hours, will carry the patient through these painful periods with great satisfaction.—*Medical Reprints*, London, Eng.

NOTES FROM A PHYSICIAN'S DIARY.—La Grippe is again prevalent throughout the land, being epidemic in many sections of the country. The sick list is greatly augmented, much valuable time is lost, and the mortality is directly and indirectly increased by its presence. The disease in its protean manifestations is almost regarded as the scourge of the country, for it leaves in its wake more sorrowing hearts and shattered homes than any disease known in recent years. The medical profession of to-day should realize the importance of early and judicious therapeutics as applied to the treatment of La Grippe. From practical observation by men of experience in professional circles the following conclusions seem warranted. When a physician has diagnosed his patient's ailment as one of La Grippe, free catharsis should at once be instituted. For the intense head ache, coryza, backache and general soreness, the following should be administered:

R

Liquid Antipyretic (Tildens) f. 3

Sig. One teaspoonful every three hours.

After the pyrexia is under control, the sequella of La Grippe, may be permanently removed by the administration of Tablets of Liquid Antipyretic (Tildens's) and Quinine ($2\frac{1}{2}$ grs. each) until all grip symptoms disappear. The troublesome cough, which is a frequent accompaniment of La Grippe is controlled by the administration of teaspoonful doses of whiskey ad libitum.

The Post-Partum Douche is not only unnecessary but harmful after normal labors. It is more likely to carry septic matter into the parturient canal than it is to remove any that might possibly be there. There is very seldom septic matter to be washed away unless it is carried there from the outside first.—*Ex.*

Pills—"Dosem has been expelled from the medical association for advertising contrary to the code."

Squills—"How did he advertise?"

Pills—"He was called to lead the prayer meeting the other evening, and he walked up front and he gave out the hymn, 'The Great Physician Now Is Here.'"

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No. 5

Original Communications.

A Running Account of My First Three Years' Surgical Work.

By HUBERT A. ROYSTER, A B., M. D., Raleigh, N. C.

One of the Visiting Staff, Rex Hospital; Surgeon-in-Charge, Lt. Agnes Hospital; Formerly House Surgeon, Mercy Hospital, Pittsburg, Pa.

[CONCLUDED FROM PAGE 142.]

VII. ABDOMINAL OPERATIONS.—My records show that up to August, 1898, I had opened the peritoneal cavity ten times. This series includes 3 hysterectomies, one oöphorectomy, one ovariectomy, three operations for ectopic gestation (one of these by the vaginal route) and two operations for appendicitis. Of these cases, two have already been reported and will, therefore, be merely referred to here. One was "A case of combined intra- and extrauterine pregnancy at term; the former child delivered alive naturally; the latter (dead) removed by celiotomy four weeks later; recovery.* The other was the removal of an inflamed and abnormally situated appendix, occupying a place in the right groin just beneath Poupart's ligament.† The eight remaining operations will be described under the pathological condition which was present.

1. *Fibroid Tumor of the Uterus*.—(a) Tempe L., colored, age 35; married 10 years, no children. Had noticed the large tumor for several years. Pain, hemorrhage and pressure symptoms marked. Her general condition was not good, the heart being feeble and anæmia very pronounced. She was told of the serious character of the operation and a probably fatal result predicted; but she preferred rather to run the risk than to live as she was. Supra-vaginal hysterectomy performed in June, 1897. Many omenta] and intestinal adhesions and much blood lost in breaking them up. Tumor weighed 14 pounds and so filled the pelvis that little room was left on either

*Am. Jour. Obstet. Dec. 1897.

†"A Surgical Surprise," Charlotte Med. Jour. Feb. 1897.

side to tie off the broad ligament and its vessels. Patient came near to dying on the table but revived, only to succumb to shock five hours later.

(b) Ellen H., colored, age 38; married, but sterile. Has had a tumor in abdomen for some years, with the usual symptoms of a fibroid, though the hemorrhage was not severe. Frequent attacks of localized peritoneal inflammation. In 1895 was treated for four months by electricity in a Philadelphia hospital, resulting in some amelioration of her symptoms for a time but with no diminution in the size of the tumor. For two months before she came to be examined she had been losing flesh, was troubled with dyspnea and her uterine symptoms were on the increase. Abdominal hysterectomy, supra-vaginal amputation, June 17, 1898. Cervical canal curetted first. Abdomen opened and incision prolonged until tumor could be eventrated. No intestinal adhesions. Tumor wedged tightly down into pelvic cavity. Ovarian arteries secured on each side. Peritoneal flap dissected off anteriorly, but none could be obtained posteriorly on account of close adhesion to peri-rectal tissue. Uterine arteries then tied inside the flaps of peritoneum. Silk ligature slipped off left ovarian artery during manipulations; tied again, but not until a considerable hemorrhage had occurred. Uterus then amputated above the cervix, its edges united and bladder flap brought over this with continuous catgut suture. Abdominal cavity irrigated with normal salt solution and a pint allowed to remain. Wound closed with through-and-through silk-worm gut sutures and buried catgut on the fascia of the recti. A quart of salt solution by the rectum before the patient was taken from the table sufficed to restore the weakened circulation. This is an invariable procedure after abdominal operations and is employed by the writer as a routine measure. It lessens the shock, almost entirely prevents the thirst and serves to increase wonderfully the urinary secretion. This patient reacted nicely and made an uneventful recovery. She is now strong and healthy.

(c) Cilla H., colored, age 32, single and though she was a common prostitute for a number of years previously, never became pregnant. Came under my observation first in 1896, when a large fibro-myoma was found and operation advised; but she procrastinated and did not again appear until the summer of 1898. At this time the abdomen was much larger and her condition was not so favorable. Operation, myomectomy, July 25, 1898. Seven-inch abdominal incision. Adhesions to omentum and bowels, the large intestine closely incircling the tumor like a wreath. In separating them, raw surfaces were left in many places on the gut and some of these could not be properly covered. Tumor, a pedunculated soft myoma, springing from the fundus uteri. Pedicle (half-inch in diameter) ligated with silk and cut off smooth. Weight of tumor $9\frac{1}{2}$ pounds. Abdominal cavity flushed and closed as in previous case. Patient stood the operation well, but developed persistent tympanites early and died on the third day, as far as could be seen, from sepsis. No flaw in the technique was discovered and it is probably right to suppose that the intestinal paresis and injury to the

serous coat predisposed to the septic condition. Since August I have successfully performed hysterectomy by the supra-vaginal method in three more cases of uterine fibroid.

2. *Enlarged Cystic Ovary*.—Mrs. Ada S., age 21, married six years, 3 children. Puerperal fever after last child birth 2 years previous. Menses always painful and at times irregular. Hysterical. Left ovary enlarged, right apparently normal. Operation, August 16, 1897. Curettage and packing first. Abdomen opened by a two-inch incision; left ovary (large and cystic) and tube removed. Wound closed by *en masse* silk-worm gut sutures with cat gut on fascia. This woman made a good recovery, with no untoward features. She gained flesh rapidly and has no more "nervous spells."

3. *Ovarian Cyst*.—Mrs. C., age 57, widow, several children. Referred by Dr. A. W. Goodwin. Though a fleshy woman, she had noticed the enlargement of her abdomen for a long time and said it was increasing. Circumference at umbilicus 52 inches; fluctuation distinct, with dullness anteriorly and resonance in flanks. Patient presented the typical *facies ovariana*. Ovariectomy, April 28, 1898. Six-inch incision. Cyst densely adherent to anterior abdominal wall, and was freed with difficulty. Trocar inserted, a large quantity of gelatinous fluid evacuated and the pedicle which sprung from the right side, ligated with strong silk. The atrophied left ovary was not disturbed. Abdomen irrigated and closed with silk worm gut sutures. Convalescence complicated in second week by an intra-mural abscess. Otherwise normal. This patient is now well.

4. *Extra-uterine Pregnancy*.—(a) Emma D., mulatto, age 19, married 2 years; 2 children, last one a year and a half before. Menses ceased for 3 months and then had a flooding spell in October, 1896. Since then has had irregular bleeding and has been in bed most of the time. Suffers intensely with pain in the lower part of the abdomen. In the left side was found a mass which presented all the characteristics of a pelvic hematocle. Vaginal section, May 4, 1897. Incision with scissors into Douglas' cut-de-sac; evacuated a large cyst, with clots and placental debris. Another smaller cyst removed entire from left broad ligament along with portion of tube. Irrigated with salt solution and packed with strips of gauze. Recovery rapid and uneventful.

(b) Elvira G., mulatto, age 29, married, 2 children, younger 3 years old. Irregular and painful menstruation since. After missing menses for four months they came on suddenly with pain, and, being in the country, no physician was summoned, but the patient was put to bed in a fainting condition. Her family thought she was having a miscarriage and that it would soon terminate safely. Instead of that she became worse; the pain did not cease, the bleeding continued and she got weaker. When I saw her two weeks later she had some fever and a rapid pulse, and was very anæmic and emaciated. There was a tender, elastic mass in her left side, pushing the uterus over to the right. A diagnosis of ectopic pregnancy was made and the patient taken to the St. Agnes Hospital at once, where an abdominal section

was performed as soon as she could be prepared. Operation, June 22, 1898. Five-inch incision. Sac was rather higher up than is usual. It was adherent to omentum, intestines and uterus and resembled a fibroid or a normally pregnant womb. Incised and hard clots and placental tissue shelled out; no signs of a fetus. Very little hemorrhage. Irrigated freely. Sac could not be safely removed. It was, accordingly, stitched to the abdominal walls and drained with gauze. Patient convalesced satisfactorily, went home in good condition and has since remained so.

5. *Appendicitis*. Mr. F. H. B., age 39; home in New Hampshire spending winter at Southern Pines, N. C. Was sent South for "throat trouble." Two weeks before I was called to see him, the attack began with severe pain and was followed by the usual symptoms of appendicitis. After a slight improvement, he was gradually getting worse, and was having fever and sweats. In the right iliac region was a prominent swelling, which was extremely tender to pressure and markedly fluctuating. Patient brought in Pullman car to Rex Hospital and operation performed January 29, 1898. Incision over mass caused a pint of offensive pus to gush out. Sac found; fortunately, to be adherent to abdominal parietes and walled off from peritoneal cavity. Sloughed ends of appendix discovered in the pus; its base formed part of the limiting wall and was, therefore, allowed to remain. Cavity of abscess washed with salt solution and gauze drain introduced. Good reaction, a comfortable convalescence and satisfactory union of wound. The patient has written several times since of his complete restoration to his usual health and freedom from any symptoms referable to the appendix. In November 1898, I operated successfully in the same way upon another case of appendicitis with abscess, referred to me by Dr. S. P. Holding, of Wake Forest.

Malarial Haemoglobinuria—Its Treatment by Injection of Normal Salt Solution.*

BY HENRY W. LEWIS, M. D., Jackson, N. C.

IT is not within the scope of this paper to treat the subject of malarial hæmoglobinuria *in extenso*, either as to its history or causation; nor do I intend to notice the many drugs, and treatments advised by various authors. My object is to give you a faithful clinical picture, and to present my views and convictions as to what I consider a rational and fairly successful method of combating this disease, as seen on the bottom land of the Roanoke river in North Carolina. It is hoped that this paper, imperfect as it is, may bring out a full discussion of the subject by the gentlemen here present.

The symptom to which the name malarial hæmoglobinuria is applied, is of the deepest interest, not only on account of the grave prognosis in all

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cases which present it, but also because the ætiology of the disease in which it occurs is imperfectly understood and its treatment a subject on which medical men differ. The term malarial hæmaturia, some times used to designate this disease signifies bloody urine, and is misleading, as there is little if any blood in the urine, the black or red color of which is due to the presence of blood-pigment. In this paper I shall use the name malarial hæmoglobinuria, as it more truthfully indicates the real substance that colors the urine in this disease; I shall also refer to it as yellow chill, a name given it in my country by the laity.

It is now of frequent occurrence in the intensely malarious districts of the South and was recognized in Northampton County, North Carolina, about forty years ago, but it was very uncommon until about the year 1870, and was confined to the inhabitants of certain very malarious sections, those living near the Roanoke river being most liable, while the denizens of the high lands, or piney woods country, seemed exempt from hæmoglobinuria, yet subject to all other manifestations of malaria. Of late, the disease has invaded the piney woods section, and all the physicians on the river, from Weldon down, see more or less of it. Some have had a large number of cases, my friend Dr. Bolton, of Rich Square, having had one hundred and seventy-five cases to occur in his practice since 1885, while his predecessor, at Rich Square, had only about sixty cases in forty years. I attribute the increase to cutting down the timber.

The mortality with us in this disease was formerly about fifty per cent. but I am happy to say it is smaller now. Dr. Bolton, who is very successful in its treatment, sustained in his hundred and seventy-five cases, a death rate of twenty-two per cent. In my own cases, sixty-nine in number, (those seen in consultation not counted), I find the mortality prior to 1890 about forty per cent., from that time until January 1897, about twenty per cent.; since then I have treated sixteen cases without a death. The more rational use of quinine, and a better understanding of the treatment of this disease, as well as the fact that mild cases are more frequent than in the past are, I think, responsible for the lowered mortality.

Much has been written in the journals concerning this disease, and many papers presented to the various medical societies of the South, some of them showing evidence of original research and investigation, yet its causation remains a matter of conjecture, its treatment a matter of dispute. Those who are experienced in the treatment of this disease may be divided into the quinine and anti-quinine advocates. A certain number of those administering the drug in this disease consider it curative, the majority, however, are of the opinion that its only action is to destroy the malarial parasite, and thus prevent the patient from having another chill. The anti-quinine men seem to be in the majority, and are of one mind. They think quinine harmful, and contend that it keeps up, even produces hæmoglobinuria and helps to kill the patient. It should be noticed that there has been some evolution, in regard to the use of quinine in this disease, even among its advocates, as medium

or anti-periodic doses administered hypodermatically are mostly in vogue, whereas massive doses by the mouth, often repeated, were formerly used. The large doses were beyond question harmful, and perhaps responsible for many fatal cases. I recall a case seen in 1880, treated by a most intelligent physician, where the patient, unable to retain anything by the stomach, was narcotized with hypodemics of morphia and a ten grain dose of quinine, almost forced down his throat every four hours; this was the first case I ever saw, and I was much impressed with what I considered its over treatment.

Quinine at the present day is the subject of much criticism, when used in malarial hæmoglobinuria. No less an authority than the distinguished Doctor Robert Koch, of Berlin, has given publicity to the opinion, that it causes the black water fever of South Africa, and many authorities abroad hold that it frequently produces hæmoglobinuria. In 1892 Dr. H. A. Hare, of Philadelphia, endeavored to bring out the opinion of southern physicians regarding the use of quinine in this disease, by sending out a question circular to six hundred of them. He received one hundred and fifty-five replies to this circular. Only fifty-four of those replying were deemed experienced in the treatment of this disease, and of these 19 thought quinine useful, or curative, while 28 considered it harmful, or productive of hæmoglobinuria. From this data, Dr. Hare prepared an able paper published in the *Therapeutic Gazette*, of July, 1892. Dr. Otis F. Manson, of Richmond, Va., in a valuable and exhaustive historical paper, written by request of the Virginia Medical Society, in 1886, containing clinical cases (reported mostly from foreign sources), concluded that the disease was due to the *Bilharzia Haematobia*. Dr. Julian Baker, of Tarboro, N. C., presented a paper to The State Medical Society, of North Carolina, in 1887, reporting a number of cases, with results of an autopsy, in which sections of liver and spleen showed bacilli similar to the bacillus of anthrax. Dr. Heitzman, of New York, also examined sections from this case, and corroborated Dr. Baker as to this bacillus. He (Heitzman) found in the sections of liver, sent by Baker, the portal vessels full of blood, but no corpuscles were recognizable. In the capillaries and connective tissue were found peculiar wadlets of microbes, (as he expresses it), similar to those seen in splenic cattle, only more slender. The kidney he found to be in a state of croupous hæmorrhagic inflammation, with the blood disorganized as in the liver. Dr. Heitzman says, as quoted by Dr. Baker, "there is no reasonable doubt in my mind that the disease is caused by some microbe, nearly identical with that of splenic fever in cattle." Dr. Baker concluded that the disease was caused by a mixed infection of the bacillus anthracis and bacillus malarie (variety not mentioned). He was awarded the Pitman Prize for this paper by The North Carolina State Medical Society.

Neither the conclusions of Manson nor the observations of Baker and Heitzman have been corroborated by others.

In 1897 Dr. William Sidney Thayer, of The Johns Hopkins Medical College, published a book entitled "Lectures on the Malarial Fevers," a scien-

tific work based upon a study of all the malarial parasites to date, and treats fully of malarial fevers; this book is doubtless familiar to all of you. He says: "Malarial hæmoglobinuria occurs, probably, only in æstivo autumnal infections." (Infection with the hæmatozoon falciparum.—*Welch*.) He also says: "We cannot attribute the hæmoglobinuria to the action of this parasite alone, but must seek the explanation of its occurrence in the existence of some condition, which will render the uninfected red blood-corpuscles, unusually vulnerable, possibly some change in the blood serum." He further says: "It is probable that degenerative changes in certain of the internal organs, the liver and the kidneys in particular, may play an important role in connection with the development of the hæmoglobinuric paroxysm, in addition there must be some exciting cause—a cause which will vary under different circumstances."

I agree with Dr. Thayer as to the æstivo autumnal parasites being present in this disease, which is evidenced by the irregularity of the malarial paroxysms. The condition which allows such extensive blood disintegration, remains a matter of theory. As to the exciting cause, we know that a chill, or perhaps several chills in rapid succession precede the attack, the objective symptoms of which, are those of malarial fever, plus jaundice and black urine. Dr. Thayer's book is most valuable, and throws much light on the whole subject of malaria. I do not think, however, that malarial hæmoglobinuria, has been sufficiently studied in this country by those properly trained to draw correct conclusions from blood examinations and post-mortems. It is yet almost a *terra incognita*, and full of promise to the explorer.

In my experience, a continuous residence of from six months to two years in an intensely malarious district, with frequent malarial attacks, is necessary to produce the condition in which we have hæmoglobinuria. These patients present the appearance of chronic malarial poisoning, are the victims of aching backs, enlarged spleens and swollen livers. They generally belong to the poorer class, those who are poorly clad and fed, those who drink surface water and bad whiskey, are the most liable.

Prodromic symptoms are often present; the most constant are frequent or irregular chills, dull pains over the region of the kidney, abdominal tenderness, colicky pains, occasional nausea, with pale and slightly yellow skin. No prodromes may be present and the subject, when taken, may be about his usual work and present the appearance of moderate health. The onset may be sudden. I have had patients to consult me at my office, for ordinary intermittent fever, and in a few hours be taken with a chill and hæmoglobinuria. It is rare in the negro race, but they are not immune, as I have met with four negro cases in my own practice, and have knowledge of others. Hæmoglobinuria is most common in the Fall and Winter months, occurring mostly in males, those from 10 to 45 years of age being most liable.

As prophylactics, quinine in moderate doses, nitro-muriatic acid, arsenic, strychnina, and iron, are the drugs which have served me best. Persons living in localities where this disease is endemic, should wear warm clothing,

boil their drinking water or use water from deeply driven, or artesian wells, avoid exposure and intemperance, use mosquito nets, and if possible, sleep in the upper story of their houses. If every malarial attack was properly treated, if good water and proper food were always obtainable, malarial hæmoglobinuria would be rare.

The prognosis should be guarded, and will depend somewhat upon the number of previous attacks, the amount of cachexia present, the intensity of the jaundice and the quantity and color of the urine. It is to be remembered that what seems a mild case at first, may in 12 or 14 hours be a most serious one. Should a second chill occur, a mild attack will merge into a severe one. Some subjects are stricken down, and die before the physician can reach them. Such cases are fortunately rare. The urine is generally passed during, or soon after the chill, in considerable quantity, but there may be suppression, partial, or complete from the first. I have had one case, where the urine was passed only once after the chill, the patient dying on the third day. The appearance of the urine is characteristic of the disease. When seen by reflection, it is almost black; when examined by refraction, it is a dark claret color; its specific gravity varies with the amount passed, but is usually above normal, it is acid and highly albuminous; and on standing a reddish brown deposit is found. Jaundice is always present in greater or lesser degree, and its intensity is a fair index of the severity of the attack. It makes its appearance in from 3 to 12 hours after the chill and in some cases the skin is so deeply colored as to present a dark, almost bronze hue. These cases are usually malignant. Nausea is present, except in very mild cases, and is one of the most rebellious, and distressing symptoms. The vomited matters are yellow at first, later they become green, in bad cases black, and may be mixed with much mucous, and sometimes a little fluid or clotted blood. In my cases the bowels have generally been constipated; the tongue may be clean or coated; it speedily becomes stained with the vomited bile; the temperature ranges from 102° F. to 105° F. or 106° F., the pulse is quick and feeble; the pupils dilated; the expression anxious; the patient restless.

The duration of an attack of this disease, may be placed at from one to six days. In a mild case the urine will commence to clear in from 24 to 48 hours, the temperature will fall, the stomach becomes retentive, the jaundice fades and the patient enters upon convalescence but there will be in most cases, some fever for a week or ten days, which quinine will not control.

I suppose it is due to some remaining toxæmia, or perhaps to nephritis, which I believe to be present in all of these cases. In severe cases and those having a second or third chill, there will be an aggravation of all the symptoms, the urine remains black, and becomes scanty; it may be retained, or suppressed; the jaundice deepens, the patient retains nothing by the mouth; the tongue is brown and parched; the vomited matter black; the abdomen becomes sunken or tympanitic; the pulse more feeble; the temperature higher; there may be stupor or intense restlessness, and the outlook will seem most desperate.

Some of these bad cases will recover, unless there be suppression of the urine, or uncontrollable vomiting. In the case of suppression, the patient will die in coma or convulsions; if the vomiting does not cease the patient will die from exhaustion.

Is it necessary to give quinine in this disease? Referring back to the article of Dr. Hare, already mentioned, you will see he notes only 19, out of 54 experienced physicians who favored quinine. *I go with the minority*, I give it. There are cases which doubtless get well without it. I know there are many which get well with it. I shall not trust my cases without this drug, until it is *practically demonstrated*, that the malarial parasite is self-destroying in this disease—(a theory advanced by Thayer and others). I wish it understood however, that I advocate medium or antiperiodic doses of quinine, given only with the hyperdermic syringe, such doses as experience has shown me to be sufficient to prevent another paroxysm.

I do not deny that this drug will produce hæmoglobinuria, there are many such cases on record, yet in a practice of 20 years I have not observed it. One well known fact should be borne in mind in the treatment of this disease. *viz:* one attack will render the subject more susceptible to another, and if he has a chill within a month of his "yellow chill," he will probably have hæmoglobinuria.

As I have before stated, the malarial paroxysms in this disease are irregular, no one can tell when they will recur, I have frequently seen them recur in 12 hours—indeed my patients in the past, before I resorted to the hyperdermic use of quinine, sometimes insisted on having the second, or third chill, in spite of the drug given by the mouth. I desire to make clear this point, that quinine should never be given by the mouth until the stomach is retentive and the urine clear.

Allow me to go a little further into this question. Thayer says, in describing the treatment of this disease, "if the parasite has disappeared, either as a result of the paroxysm itself, or of doses of quinine already given, it may be as well to abstain, at least for a time, from the administration of the drug." How are we to inform ourselves upon this point? Only by blood examinations, which country physicians are rarely competent to make. Suppose they could make them; does not Dr. Thayer again state that in *this disease* we are dealing with the æstivo autumnal parasite? He says of them, "not infrequently they are very scanty, and every now and then you may hunt for a long time without finding any organism;" so we *find ourselves* on the *horns of a dilemma*. Shall we wait and see if another chill occurs, which experience has taught us will jeopardize the life of our patient, or shall we give quinine—(which in proper dose has never been proven to act unfavorably in this disease)? I think there can be but one answer to this question.

As to the parasite disappearing as a result of the *paroxysm itself*, the following case will illustrate how unsafe it is to rely on that theory.

C. N., male, age thirty-six, farmer, well developed, seen Oct, 21, 1898, at 8 a. m.; chill at 12 o'clock preceding night; had been having irregular chills for a month, had taken quinine, but none within the last week; did not know he had a yellow chill until he saw the black urine in vessel, where he passed it in the night; says he cannot take quinine, as it always gives him urticaria, and bloody urine; refuses to allow me to inject it under his skin; mother says it also gives her urticaria. This patient had hæmoglobinuria when a child; he passed some black urine during my visit; temperature 102° F., pulse 95; skin slightly jaundiced but moist; tongue clean; bowels constipated, has vomited twice. No quinine was given, but other treatment to be described later—was instituted.

Same day, 6 p. m. Patient had another chill at 1 p. m.; now very sick, temperature 104° F.; pulse very quick; urine black and scanty; skin dry and very yellow; vomits green bile; is restless and anxious; willing now to take quinine, which was injected under the skin (10 grs. of the bimuriate) and repeated the following morning. No other chill occurred and he made a good recovery, the urine clearing on the third day; he received four hypodermics of quinine, one each day, and it did not produce urticaria. I will leave the discussion of quinine and get down to the practical use of it. In this disease I invariably give a hypodermic dose of it, as soon as the patient is seen, no matter how much he claims to have taken, or what idiosyncrasy he thinks himself heir to, I am impelled to do this, by the fact that the statements of patients are unreliable as to the amounts taken, besides I do not believe quinine effective in this disease, when given by the mouth. I use the bimuriate, the adult dose being grs. viij-x, repeated every 24 hours. The solution is freshly prepared at the bed side, the syringe boiled, and site of injection disinfected.

These injections give some pain, and there is some local irritation following their use. One practical point is to inject them deeply into the subcutaneous tissue, after which the punctured skin should be covered with gauze or absorbent cotton, wet in camphorated spirits. I give quinine in this way to both children and adults, the dose for the former being reduced according to the age of the patient. It is repeated in 24 hours, if possible two hours before the expected chill. Given in this way it has, in my cases, prevented another chill.

Having given the antidote for the parasite, I endeavor at the same time to quiet the patient. Restlessness and anxiety will, in nearly all of these cases, furnish an indication for a sedative, and I meet this with morphia, which is given with the quinine, to an adult gr. $\frac{1}{4}$, with gr. 1-150 of atropia. Children receive it in the same way, in proportion to age. I am not content with the initial dose; it is left with the nurse, and directions given, to repeat it every six or eight hours, in order to keep the patient gently under its influence. I regard these continued doses of morphia as very important, and they are kept up until the patient begins to improve.

The beneficial action of opium in malaria generally, and in this disease especially, has not received the attention it deserves. It helps to prevent another chill; it induces rest and comfort; it serves to ward off the *great* danger ahead, uræmia, and it is the best thing for the nausea.

Attention is now directed towards the toxæmia, which is producing hæmoglobinuria. For the treatment of this, no remedy in my experience is comparable, to the subcutaneous or high rectal injection of normal salt solution.

The utility of this measure is now so well established in various affections, *particularly* in hæmorrhage, that I need not enlarge upon it here. In this disease, while there is no true hæmorrhage, the blood is being disintegrated within the patient's veins, and its vital elements set free or destroyed thereby producing toxins, so we have all the effects of hæmorrhage, plus toxæmia.

For the last two years I have been giving my "yellow chill" patients high rectal injections of hot normal salt solution, repeated every four or six hours, and continued until convalescence is established. I administer the first one myself. The quantity used is from a half to one and a half pints. A fountain syringe with large soft catheter attached is employed, and is left with the nurse who is taught how to use it. These rectal injections do good and are generally retained, but should the case prove malignant, or if suppression of urine, collapse, or uræmia threaten, resort is had at once, to the subcutaneous method.

I will give a case, which I think furnishes some evidence of the value of normal salt solution in this disease. This case occurred at Faison's old Mill, about $4\frac{1}{2}$ miles from Jackson, a locality of some interest because it is the favored spot of yellow chills. I have treated 24 cases within a radius of $2\frac{1}{2}$ miles of this place, ten of them in the house where this patient, the son of the miller resided.

Case seen October 28th, 1897, at 8 a. m., S. J. male, age 13 years; third attack; last one in 1895; has been having irregular chills, two within the last twenty-four hours, last chill at 4 o'clock this morning. Passed black urine, about a half pint at 5 o'clock. Temperature, 103.5; pulse, 110; skin dry and deeply tinged; tongue coated; bowels constipated; has had colicky pains in the abdomen; nausea in the mornings; complains of severe pain in his back and loins. Spleen very large and area of liver dulness increased; is very restless and anxious. Quinine bimuriate gr. vjss, morphia gr. $\frac{1}{8}$ with atropia gr. 1-200 was injected into arm, 6 grs. of calomel and 12 grs. of sodium bicarbonate, divided into 12 powders, were given one every hour dry on the tongue, a teaspoonful of phosphate of soda to be given in cup of hot water every four hours. Rectum cleansed with large enema, and one pint of hot saline solution injected high up. This was retained, these injections to be repeated every 4 hours. Five tablets morphia $\frac{1}{8}$ gr. atropia 1-200 gr. were left, with directions to give one every six or eight hours, patient to drink freely of very hot water in which a little sodium bicarbonate

is dissolved. When he feels that he must vomit, mustard plaster over stomach and loins, to be followed with hot turpentine stupes; patient to have all the water he will drink, but no nourishment.

October 29th, 2 a. m. Patient delirious, temperature $104\frac{1}{2}^{\circ}$, pulse very quick and feeble; tongue dry; skin dry and deeply jaundiced; vomits everything given; has had two large actions, (these occurred when the high saline injections were used); has passed no urine since my visit the day before. Catheter introduced and about $1\frac{1}{2}$ ounces of very black urine withdrawn. The skin of the submammary region was now shaved and disinfected. The normal salt solution (a teaspoonful of table salt to a pint of water;) boiled and strained was injected into the submammary tissue at a temperature of 105° F. The fountain syringe with small aspirator needle tied in the tube, subjected to boiling water, was used for the operation, my fever thermometer used to ascertain the temperature of the saline solution. The quantity injected was a little over a pint.

A high rectal injection of the saline solution was given and retained. Quinine bimuriate, gr. vjss, morphia, gr. $\frac{1}{8}$, injected under the skin of the arm, phosphate of soda continued every four hours, morphia and atropia tablets every six or eight hours, rectal injections of salt solution every four hours, water and lemonade to be given in as large quantities as he will take. Patient sponged with water and vinegar, and cold applied to head.

October 29th, 1 p. m. — Patient resting more quietly; has had about three hours sleep; stomach more retentive; likes the lemonade; two more movements of the bowels; retains the salt water injections; skin moist; no change in color; temperature 103° F.; pulse 100; tongue moist but still stained with bile; no passage of urine since my morning visit; catheter used and about a pint of black urine withdrawn.

We will not follow this case further. The patient recovered, his urine clearing on the fifth day; the subcutaneous injection of normal salt solution was not repeated; the rectal injections were continued until the seventh day. Dilute nitro muriatic acid in doses of eight drops every four hours in lemonade was substituted for the phosphate of soda, of which he had a night and morning dose to keep his bowels open. The morphia was not given after the fourth day; he was fed with egg albumen water and butter milk, until his stomach became quiet. He received five hypodermics of quinine in all.

This was evidently a case of threatened suppression of urine, and I believe it would have gone on to complete suppression, but for the use of the normal salt solution under the skin.

I will mention, in passing, the case of a mulatto woman, seen Nov. 20th, 1897. This was apparently a desperate case of pernicious fever, the woman being comatose and unable to swallow. A pint and one half of the salt solution was injected under the skin. Hypodermics of quinine and the high rectal infections were given; she recovered.

I have used the subcutaneous method only three times in hæmoglobinuria, and once in the case of pernicious fever mentioned above. These in-

jections are not recommended here as a specific in yellow chills, many cases of which I believe will die, whatever the treatment. I believe, however, that they meet the most important indication in this disease, namely the improvement of the blood itself; by their use the entire clinical picture is often changed, the temperature falls, the urine is passed in greater quantity, and clears more quickly, the bowels and skin act better, the jaundice fades sooner. They certainly seem *most beneficial* in this disease, the most dreaded and fatal of all malarial manifestations.

I am unable to explain how they act; it may be by diluting the toxic matters in the blood, and thereby, either directly or indirectly controlling their production, or they may stimulate the engorged and inactive excretories to increased and better action. May not the introduction of this solution have some effect on the malarial parasite, as well as on toxic matters in the blood?

I think the bowels should be moved in this disease, and for this purpose I use, as you have seen, small doses of calomel and soda, frequently repeated. Phosphate of soda is given at the same time, dissolved in very hot water. The latter is repeated every four hours, until the bowels act freely. The calomel is discontinued after ten or twelve doses. I think moderate catharsis is indicated, to remove the accumulated and vitiated bile, as there is polycholism in these cases. I have found that phosphate of soda and calomel overcome the constipating effect of the morphia I am in the habit of giving, and does not produce hypercatharsis which should be avoided. After the bowels act nitro muriatic acid (dilute) is given in 5 to 10 drop doses, every 4 or 5 hours. It is more grateful to the patient when given in lemonade and is better retained by the stomach.

For the nausea, which is one of the prominent symptoms, no drug compares to morphia given hypodermically. Other measures, mustard plasters, effervescent drinks, carbonated cider, champagne, if obtainable, lemonade, brandy and cracked ice—in fact every resource at our command should be used to combat this most distressing and exhausting symptom. Large drinks of hot bicarbonate of soda solution do good—given when the patient *must* vomit, to wash out the stomach. I do not allow any nourishment for the first twenty-four hours as it is never digested, serving only to increase nausea. The patient usually has a distaste for food, but he will want water, and water is given, either hot or cold, as *much* as he will take. Butter milk, egg albumen water, and chicken broth, are given as nourishment after twenty-four hours, if the stomach can retain them; it is bad practice to worry these patients with food they will not retain; it is better to let them sip hot water and resort early to rectal feeding. This can be done by high enemas of hot peptonized milk, which are easily prepared and given, and may support the patient for some days, or until he can be nourished by the mouth. The patient should be kept in the recumbent position, and a bed pan obtained for his use. If collapse threatens, the salt solution should be used under the skin, and the physician stand by with hypodermics of ether, strychnia, and nitro glycerine, to combat it.

The temperature is controlled by cold sponging. I believe the coal tar preparations should be strictly avoided, also such drugs as ergot, gallic acid and elixir of vitriol, which are supposed to limit the action of the kidneys, and prevent hemorrhage, as in this disease diuretics, and not astringents, are indicated. A rule to be strictly observed is to keep all drugs, as far as possible, out of the patient's stomach until that viscus is quiet and retentive.

For the pain in the back and loins, mustard plasters frequently repeated, followed by hot turpentine stupes, seem to be effective. The stage of convalescence is an important one. These patients present the appearance of *profound* anæmia when the skin clears. They should be protected against another malarial attack, and I give them three or four grains of quinine, three times daily for two or three weeks. They are also put on some reconstructive tonic combined with arsenic, strychnia and iron. The hypophosphites of lime and soda, with these drugs, have served me well. Their drinking water should be boiled, they should wear warm clothes and avoid intemperance, exposure and fatigue. They should have the best and most nutritious food obtainable. Their bowels should be kept open, and for this purpose the phosphate of soda is given.

I will close this paper by giving a brief summary of the treatment—(as I understand it), of malarial hæmoglobinuria :

(1.) Protect against another chill with quinine hypodermics, administered once every 24 hours, until urine clears and stomach is quiet. Give morphia with first dose of quinine, and keep patient gently under its influence until he improves.

(2.) Give high rectal injections of normal salt solution, from the first. Repeat them every four or six hours, until convalescence is assured. Inject normal salt solution under the skin for threatened suppression of urine, uræmia or collapse.

(3.) Move the bowels frequently with calomel and phosphate of soda. Avoid over-purgation ; give nitro hydrochloric acid after bowels act.

(4.) Control temperature with cold sponging. Rely on morphia hypodermics for nausea, and persistent vomiting.

(5.) Keep patient in recumbent position. Withhold all food for twenty-four hours—but give all the water, hot or cold, the patient will take.

(6.) Nourish by the stomach after twenty-four hours if possible, if not by the rectum.

(7.) Give quinine in small doses until complete convalescence. Put patient on blood tonics, see to the quality of his food, drinking water, and clothing.

Symphysiotomy and Pelvimetry.—Dr. S. Marx, before the New York Academy of Medicine, in discussing the operation of Symphysiotomy stated that he had never seen a case in which he thought this operation necessary. Some other method always seeming to offer the best chance for the patient. As regards Pelvimetry, his experience, more and more convinced him of its uncertainty and uselessness.

Some Thoughts on Hemorrhagic Malarial Fever.*

By THOS. N. WHITE, M. D., Belvidere, N. C.

THE object of this paper is not to give an exhaustive treatise on hemorrhagic malarial fever. It is my purpose to lay before you simply my views as to this disease, its cause and the most successful manner of treatment. The views I now hold, in regard to this disease are the result of my experience and observation in a practice of more than 16 years in a malarial region. The practical results obtained lead me to believe that I am at least on the right road. If, at any point, I am in error I am open to conviction, and am anxious to know the truth. Hemorrhagic malarial fever is simple, sub-acute or chronic malarial fever with most of the usual symptoms much intensified, complicated with hemorrhage and accompanied with jaundice, nervousness and great prostration. The diagnostic symptom of this disease is hæmaturia. Many have no hemorrhage except from the kidneys, others have hemorrhage from the nose, stomach, uterus and bowels, in addition to the hæmaturia while some cases of malarial fever occur with profuse hemorrhage from the nose, stomach, bowels and uterus but without the hæmaturia, differing from the hæmaturia cases only in degree as would be expected when the kidneys were not involved. To embrace all classes of this disease (for I believe all to be of the same origin), I consider the term hemorrhagic malarial fever to be more appropriate than the more popular title hæmaturia.

The hemorrhages are due to the *improper and prolonged administration of quinine* in a system unprepared to receive it. Quinine is an irritant to mucous membranes, also to the kidneys, and when given to a patient with a checked portal circulation it remains in the system exerting its irritant action, except that which is eliminated through the kidneys. This condition of affairs may be tolerated for a time without much harm resulting, but the longer it continues and the greater the quantity of quinine given the greater the irritation, until congestion follows the irritation and hemorrhage follows the congestion. I have never known of a case of hemorrhagic fever that did not follow a prolonged exposure to malarial influences, with repeated attacks of intermittent fever treated with quinine without the necessary adjuvants. I have one patient who invariably has hæmaturia after the ingestion of quinine, stop the quinine and she is quickly relieved. The fever in these cases is not always high. I recently saw a patient with this disease well marked, with intense nausea and great prostration whose temperature was at no time greater than 103°.

Hemorrhagic fever occurs more frequently in October, November and December. With proper treatment the majority of cases recover; but notwithstanding the best of care and treatment some will die. The doctor is never sure when he has one of these cases that will die, so the prognosis is

*Read before Seaboard Medical Society at Wilson, N. C., Jan. 12, 1899.

always doubtful. It runs its course quickly, as a rule within three or four days the patient is convalescing or has passed to the "beyond." All fatal cases I have seen have terminated within three days.

When called to a case I immediately give an hypodermic of morphia and sul. atropia to relieve the nausea, vomiting, restlessness and pain, and repeat the dose as often as may be found necessary to relieve the symptoms. I apply counter irritants over the stomach, liver and kidneys, give a full dose of calomel, (20 grains), followed by smaller doses at frequent intervals until there has been a free evacuation of the bowels. If this does not take place in 12 hours I give an enema, and if the hæmaturia persists after 24 hours I repeat the 20 grain dose of calomel. This is given for its sedative effect upon the kidneys as well as to evacuate the bowels. I have never had to repeat this dose more than once before the urine cleared but would repeat the dose more than once if necessary to secure the desired result.

One and one-half hours after the first dose of calomel I give three grains nitrate of potassium well diluted, and repeat this every three hours until the urine clears when I substitute ten grains chlorate of potassium for the nitrate and continue this two or three days longer. As an antiperiodic I give one grain piperine, ten grains salicine and two drops Fowler's sol. arsenic, to be repeated every hour until the urine clears; then add two grains sul. quinine to each dose and repeat every three hours until clear of fever, when a good tonic of phosphoric acid, iron, quinine and strychnia is indicated to be continued until the patient is all right. Support the heart with strychnia, digitalis, hot bottles over the heart, etc., as the symptoms may suggest.

Give hot liquid or semi-liquid nourishment. Keep in warm room. Avoid drafts. When these directions are followed, no harm results from the large doses of calomel. Carelessness will cause ptialism.

During the first two years of my practice I considered the disease a pernicious malarial fever and treated it accordingly with large doses of quinine. All died. I then abandoned the quinine and had much better results. Four years ago I began the administration of calomel in large doses (20 grains) and have since then lost only one patient from hemorrhagic fever. This patient's urine was clear twelve hours after the first chill, but her general condition was bad. She was only semi-conscious. A few hours later she had the second chill followed by profuse hemorrhage and death almost immediately. I consider the large doses of calomel and the withholding the quinine until the partial circulation is open and the congestion of the kidneys is relieved, the main points in the treatment.

Recreation a Duty.—Never was good work done continuously without good rest. Strained organs are resentful; and this is particularly so with man's mind, for rest is the deep basis of this world's repair, and holds as good with a violet as with man's brain.

"Rest is not quitting the busy career;

Rest is the fitting of self to its sphere."

Hemorrhagic Fever and Its Treatment.*

By J. J. MANN, M. D., Nashville, N. C.

THIS is a severe form of malaria, and is characterized from the other forms of malarial fever by the extreme yellowishness of the skin and a flow of black or dark brown urine, which was at one time thought to be blood. This form of malarial fever is of very rare occurrence and is limited to low, marshy, swampy and exceedingly malarious districts, and all people, except negroes, residing in these districts, are subject to this dreadful disease. Children stand this disease according to age better than grown up people. Its mortality is exceedingly high in old age; from 85 to 95 per cent. Some few old people who are very strong may recover, but the majority die in a very short time; from twenty-four to forty-eight hours.

Etiology.—The etiology of this disease is very obscure, the great underlying cause having never been differentially demonstrated, but from the name one might come to the conclusion that malaria is the prime factor in the production of this disease, and this, I think, is true and it is recognized by the medical profession, save and except by one very able authority (Koch) who declares that this disease is caused by toxic doses of quinine. Malaria, I believe, is the great primary cause of the disease, but the disease, according to my opinion, is not due to the *direct* effects of malaria poison, but is the result of an accumulation of poisons which, owing to abnormal conditions in the parenchyma of the liver, are formed in its cells, and taken into the general circulation. This result is brought about by the depressing effects which the paroxysm or chill has on the vaso motor system causing a lowering of the blood pressure, which permits a flow of bile into the circulation, when its toxic properties (urea and cholestim) are accumulated in the blood, producing these grave symptoms, such as suppression of urine, excruciating headache, persistent sick stomach, weak and feeble pulse. All of these symptoms are a great deal more severe than they would be in the simple form of the disease, however continuous the simple form of the disease may be, showing beyond a doubt that there are other toxic agents at work.

We can understand this better if we take into consideration what Beaumetz has said in regard to the morbid poison which the economy produces during life, and the important part which the liver plays in such cases. Beaumetz says when the parenchyma of the liver is altered these toxic substances can accumulate in the blood and produce their deleterious effects. So far as the hemorrhages are concerned, they may be due to a change in the blood, to the long persistent state of malnutrition in chronic malarial cachexia, producing textural weakness in the coats of blood vessels and this at a point where passive congestion is greatest during the cold state.

Bemiss is of the opinion that the hemorrhages are not due to the malarious effects, but to some hemorrhage producing disease, and he says, "I do

*Read before Seaboard Medical Association at Wilson, June.

most earnestly assert that during a practice of almost half a century, nearly all of which has been passed in malarious localities, I have never once seen a malarial fever patient with a general hemorrhagic tendency if yellow fever and other hemorrhagic inducing diseases could be authoritatively excluded.

Symptoms.—The disease is invariably ushered in with a distinct chill followed by a rise of temperature varying from 102 to 106, a severe headache and flow of black or dark brown urine that looks like blood and water mixed, this flow is usually scanty, although at times it is very profuse. In a few hours the skin begins to assume a yellow tinge, and in twelve or fifteen hours it has become as yellow as saffron. As soon as the chill is over the patient is taken with sick stomach, and will vomit and retch for hours; sometimes for days and nights. This vomiting and rethrowing, in some cases, is so severe that the patient is unable to retain anything at all, and continues until the patient dies from exhaustion.

Prognosis.—Prognosis of this disease is very unfavorable indeed; the mortality being from 85 to 95 per cent. However, some few recover, children standing this disease much better than grown up people. People over 55 never recover, and older ones stand less chance. There are some symptoms that seem to indicate a favorable prognosis, viz: an extreme yellow skin with a profuse flow of urine, on the other hand a pale yellow skin with little or no flow are grave symptoms. A suppression of the function of the kidneys twenty-four hours is a symptom that never fails to end in death.

Treatment.—This is a disease that needs but little treatment. My plan of treatment consists in the following:

Hydrarg. Chlor. Mit.	8 gr
Sodii Bicarb	20 gr
Ft in charts No. 4	

Sig: Take one powder every 1 or 2 hours until bowels act freely.

Pot. Bitart.	1 ½ oz
Aqua Pura	8 oz

Sig: Tablespoonful every 3 or 4 hours.

If patient continues very sick on stomach place half teaspoonful of sodii bicarb in glassful of warm water and give at once, and repeat this every few minutes until water is retained; or until you think you have cleansed the stomach sufficiently. If bowels do not act once or twice a day give calomel or some saline cathartic. If kidneys are inactive give hip baths and inject bowels full of water as warm as can be borne. Give digitalis, diuretine, put hot poultices over kidneys. Do not do anything to retard the action of the kidneys however active they may be, you need not fear any danger along this line. Just as soon as you get a free watery action from the bowels and the kidneys to acting well, give something to make new blood. Some authorities say not to give iron if there is any fever, but I disregard this and give it from beginning to end, if the kidneys are acting well. I always use the pyrophos of iron in this way.

Ferri Pyrophos	1 ½ drachm
Syr. Simplis	½ oz
Aqua	3 ½ oz

Sig: Teaspoonful every 3 hours.

The patient must be fed on very nutritious and easily digested food, such as egg-nog, milk, chicken essence and beef tea. If pulse becomes feeble give strychnine nit. 1-30 gr., every 3 or 4 hours with whiskey or wine. As to quinine I never use it until patient's urine has cleared up and fever and sick stomach have disappeared, then in only very small doses. This has been my rule of treatment and I only hope that it may prove as successful to you as it has proven to me. I have treated sixty-nine cases in this way with only one death.

Gynecological Axioms.—A Goelet (*Virg. Med. Semi-Monthly*, Vol. III, No. 9, p. 244) offers the following:

1. Never use a pessary, except as a temporary or auxiliary support. Alone, it is powerless to affect a cure.

2. Never permit a patient wearing a pessary to pass from under observation. Make her understand that it is a foreign body placed temporarily in the vagina, and that it requires watching.

3. Never think a pessary can do no harm as long as it is producing no discomfort. If retained too long it may do serious damage without the knowledge of the patient.

3. Never retain a pessary if it is producing the least discomfort. Remove it or readjust it without delay. It is a mistake to think the parts will become accustomed to its presence and the pressure.

5. Never fail to impress on the patient the importance of daily vaginal douches while wearing a pessary.

6. Never let the patient think a pessary will cure her. She will discover the truth some day and you will lose her as a patient.

7. Never insert a pessary immediately upon discovery of the malposition, but first prepare the parts for it by appropriate treatment.

8. Never use a sound or repositor for correcting the misplacement, or for making a diagnosis. It is unnecessary and dangerous. (Herein experience does not accord with that of the writer concerning the use of the repositor. The latter's action is upon an anteroposterior axis, similar to that of the uterus; its use is necessary in the replacement of the retroverted uterus, preliminary to the introduction of a pessary.) A retroverted uterus readily replaced by the finger alone is rarely in need of treatment, since it seldom gives rise to severe symptoms. The use of the sound, however, in endeavoring to replace a retroverted uterus is out of the question, since its action must be upon a lateral axis, and thus injury may readily be done.

9. Never introduce a pessary unless the uterus is freely movable and can be replaced by manipulation.

10. Never permit a patient to leave the consulting-room with a pessary that is producing the least discomfort. She should never be conscious of its presence.

11. Never be satisfied with a pessary unless it rectifies the malposition. If it does not accomplish this it is useless, and it may create some serious disturbance.

12. Never fail to seek the cause of the misplacement and endeavor to remove it. To lose sight of this means failure.

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Editorial.

VACCINATION AS A PREVENTION OF SMALL POX.

It has been a long time since the medical press and the advocates of vaccination have been so active in the dissemination of the evidences in favor of this, in some respects, the most brilliant exploits of medical science.

We have learned to distrust statistics, particularly medical statistics, but surely no fact of modern science is so capable of mathematical and experimental demonstration as the discovery of Jenner.

It is a commentary upon human nature that upon the threshold of the twentieth century, after many years of successful employment, vaccination should again be put on trial, but the recent, much commented on action of the British government in the matter has aroused unprecedented interest. In any medical periodical one picks up he is confronted by an editorial, or an array of facts and figures sufficient, it would seem, to convince the most skeptical. Mr. Rider Haggard, the well-known novelist, has even written a book ("Doctor Thorne") portraying in a vivid manner the effect upon public health liable to result from neglect of the most certain prophylactic agent known to medicine. He has received the congratulations of the British Medical Association for his literary efforts in behalf of vaccination.

We believe that the agitation will end in ultimate good in educating the public to realize the necessity of protection, and particularly if it shall result in an improvement in the method of securing immunity. In this latter respect we have made but little advance since the time of Jenner.

MEDICAL PRACTICE LAWS.

Every now and again there is a protest against the requirements of the laws governing the practice of medicine in the various States. We regret to say that occasionally the kicker is a member of the profession. Such a protest has recently been made against the enactment of a law by the present Legislature of North Carolina, requiring that all applicants for license appearing before the State Board of Medical Examiners shall be graduates of a Medical College, having a compulsory course of three years. Heretofore the examination has been open to all—students as well as graduates.

The answer usually given to such objectors is that some regulation of medical practice is necessary for the protection of the public against grossly incompetent men. It is, moreover, the policy of the law to encourage and strengthen confidence in certain relationships, such for instance as that existing between attorney and client, or physician and patient. It is for this reason that the law does not allow a medical witness to divulge secrets confided to him in a professional capacity; the same is true of an attorney. In pursuance of this policy of fostering public confidence in the relationship existing between physician and patient, it can readily be seen that in restricting the right to practice medicine to those, who by educational and professional attainments are most fitted to maintain this high trust, the law has gone farther towards the attainment of its object.

It is a fact, however, that the regulation of medical practice is often regarded by the laity as operating chiefly for the advantage of the established physicians of the community. But the success of the really able medical man does not rest upon anything so slender as the medical practice law, and were all restrictions thrown aside and the ranks of the profession filled by the ignorant and incompetent, his superior abilities would be only the more conspicuous by comparison with the glaring deficiencies of his competitors.

A Pin in the Rectum for 30 Years.—Dr. Akers reports the following instructive case—instructive as showing the advisability of digital or ocular examination of the rectum in diseases of that region (*Lancet*, Sept. 10, 1898). The patient, a man of 58, applied to the author, complaining of severe pain in the rectum on sitting, constant calls to defecation, and great suffering during the act. The feces would come out in thin, long pieces, tinged with blood. The patient had been suffering that way, in a greater or lesser degree, during the last thirty years. He consulted many physicians, but nobody subjected him to a local examination; the treatment consisting in the ordering of morphine suppositories and other local applications. On digital examination the mucous membrane of the rectum at the level of the internal sphincter was found greatly thickened, and above the sphincter, in the right wall of the rectum could be felt the head and about half an inch of the body of a pin. Under the guidance of the finger the pin was caught by forceps and extracted. All the symptoms, which existed for nearly a third of a century, rapidly disappeared.—*Am. Med. and Surg. Bulletin*.

Contemporaneous Literature.

The Western Clinical Recorder, is a new semi-monthly journal, edited by Drs. Hodges and Rinehardt.

Merck's Archives of Materia Medica and its Uses, has superseded the *American Medico-Surgical Bulletin*. *Merck's Archives* proposes to deal chiefly with modern therapeutics and the latest additions to our medical resources.

Obstetrics, is a new monthly, published by the Van Publishing Co. of New York. As this is the only journal in the United States devoted exclusively to this special field of medicine, it should speedily make a place for itself in the profession. Dr. Edward A. Ayers, Professor of Obstetrics in the New York Polyclinic, is the editor, assisted by an advisory board made up of the teachers in obstetrics throughout the country.

The subscription price is \$2.00.

"*Dixie*," published by the Dixie Publishing Co. of Baltimore, and edited by Henry C. Hopkins, contains in the February number, the usual amount of interesting reading matter. "The Four Fears of our General," adopted from the French, by Adele Bacon; "Channoah," by Edward L. White; "Anna Evanoona," by Margaret S. Briscoe; "Eleva's Daughters," a continued story, by D. Ramon Ortega y Frias, are some of the striking features of the present number. The illustrations are particularly fine, and in this connection we call attention to "Here and There in Maryland," in eight illustrations of rural scenes in that State, by Edward G. McDowel.

"Do Physicians and Pharmacists Live on the Misfortune of Humanity" is the title of a contribution by Professor John Uri Lloyd, in April number of *The Coming Age*. This thought has ever concerned the reflective members of these two professions and a careful reading of Prof. Lloyd's paper will be profitable and entertaining. Copies can be obtained at 20 cents each, from the publishers. 506 Olive St., St. Louis, Mo.

The *Forum* for March contains an unusual list of interesting subjects, prominent among which are "The Future of Our Navy," by Capt. Taylor of the U. S. Battleship Indiana; "Is Our Army Degenerating," by Col. A. S. Bacon; "What Shall We Do With the Philippines?" by Hon. Chas. Denby, late U. S. Minister to China; "Cuba, A Lost Eden," by Dr. Felix L. Oswald; "The Negro and the African Colonization," by O. F. Cook. We have purposely left to be mentioned last a paper by Mark Twain, written in his inimitable style, entitled, "Diplomatic Pay and Clothes," in which he ridicules the absence of Court Dress of our Ambassadors abroad, which, unless our minister happens to have been in the army or navy, compels him to attend court functions, even at 7 o'clock in the morning in the same old swallow-tailed which is a night dress, as much so as a night shirt.

News and Items.

The annual births exceeded the annual deaths in New York during the past year by 12,775.

Dr. Robertson (*British Med. Jour.*) describes a tonsillar calculus expelled in a fit of coughing, which weighed close to an ounce.

Influenza-Bacilli in Telephone Receivers—Dr. E. J. Kaufman, of Manhattan, has examined chemically and microscopically the dust found in telephone-receivers and has found the bacilli of influenza in many cases.

Large Calculus per Urethram.—Possibly the largest oxalate stone on record extracted per urethram without injury (female) is illustrated in the *Munich Med. Woch.* of Dec. 20, 1898. It had grown on a "lyra climax" pencil eleven centimeters in length, and was five and a half long by nine in circumference; total weight over forty grams.—*Phila. Med. Jour.*

The Health of the Pope.—The newspaper correspondents in Rome are kept busy now cabling conflicting reports of the health of the Pope. Dr. Laponi, the Pope's physician, is reported, however, as saying that the constitution of his Holiness is the strongest he has ever known, and predicts that the Pope will live to see the twentieth century.—*Medical Record.*

State Board of Medical Examiners.—Dr. M. J. Lewi, of New York; presented the report of this committee. It stated that of the 809 applicants before the board, representing the State society, 29.9 per cent. were refused. The rejections by topics were: anatomy, 55; physiology and hygiene, 41; chemistry, 67; surgery, 54; obstetrics, 62; pathology and diagnosis, 68; therapeutics, practice, and materia medica, 78.

Pelopathy is to be the next fad, according to the *New York Times*. A German clergyman has announced that as we were originally from dust the place to seek health is to seek it in mud. He orders his patients to roll in mud and leave it on as long as possible. "And do they do it? Of course they do—scores of them. And if the Pelopathist can keep his face straight for a few months he is going to be a rich man."—*Western Medical Review.*

A Symptom Anticipating the Effect of Chloroform Anæsthesia.—Dr. Lehmann (*Allg. med. Central-Zeitung*, 86, 1898) says that by means of his sign one can tell at the beginning of narcosis whether the anæsthesia will be an easy or a difficult one. In patients in whom the anæsthesia will be difficult, the eyelids remain open or half open from the beginning; if the lids are closed by the anæsthetizer, they at once reopen entirely or to half that extent. On the other hand, those patients who stand the chloroform well—in other words, those in whom anæsthesia is easy—will keep their eyes closed from the very beginning. Without attempting to enter into any explanation of this sign, Lehmann is so convinced of its value and efficacy, that in the presence of open eyelids during the beginning of chloroform anæsthesia, he at once prepares any necessary instruments before proceeding to the operation.

A Restraining Influence.—There is a case recorded in the *American Medical Compound* and copied in the *Medical Record* of a physician who had often tried to keep one of his gadding female patients at home, but always without success, until he came upon the plan of giving her a pill containing a small quantity of tellurium, which so affected her breath that she was unable to appear in public for a month. The poor patient never guessed the cause of her trouble.—*Ex.*

Sewer-Air and Diphtheria Bacilli.—The effect that sewer-air might have on the toxicity of the diphtheria bacillus has been ingeniously experimented upon by S. G. Shattock (*Jour. of Path. and Bact.*, Vol. V, 1898, p. 305) in the conjoint laboratories of the Royal College of Physicians (Lond.) and Surgeons (Eng.) The plan of the experiments was to grow lowly virulent varieties of diphtheria bacillus in sewer-air and afterwards to test their toxicity in the usual method of subcutaneous injection on guinea pigs. The air was supplied from an artificially made sewer, since it was found that the air in the London sewers was too pure. The results would seem to show that lowly virulent diphtheria bacilli, when cultivated in broth over which fecal air is passed, do not acquire toxic properties, even when the treatment be prolonged for a period of two months.—*J.*

The Dangers of the Long-Tube Nursing Bottle.—Dr. Ernest Wende, of Buffalo, proved by an instructive series of photomicrographs, coupled with bacteriological and chemical observations, that the long tubes of nursing-bottles, so long looked upon by physicians with suspicion, were really even worse than had been supposed. They were manufactured out of a very porous kind of rubber sheeting, and they were cemented at their longitudinal margins. The seams thus formed were found to be invariably imperfect, containing pits and sinuses which afforded excellent places for the lodgment of coagulated casein and for the breeding of bacteria. Of the many varieties of bacteria demonstrated to be present in nursing-tubes that had been in use, the lactic-acid bacillus predominated. The photomicrographs made it perfectly clear that it was impossible to cleanse such tubes.—*Med. Record.*

An Experiment in Ovarian Transplantation.—Dr. J. H. Glass, of Utica, under this caption, reported the case of a woman of thirty-nine years, who was in bad general condition following a double oöphorectomy, and upon whom he had performed the experiment. A young woman of seventeen needing the operation of oöphorectomy about this time, it was decided to transplant her ovary into the first patient. Both women were etherized, and then the healthy ovary was extirpated from the second woman and anchored fast in proper position in the first woman. Recovery was uneventful, and subsequently the patient in whom the ovary was placed somewhat reluctantly confessed that six days after the transplantation she had had an erotic dream, and ten days later had had a slight menstrual flow. At present, eight months after operation, she had entirely regained her mental and nutritive equilibrium.—*Med. Record.*

Women Doctors in England in Olden Times.—The *Westminster Gazette* quotes from the domestic state papers of the days of James I. a petition to the Privy Council emanating from one Thomas Briggs, himself the appointed medical officer to that august body, declaring that his profession did not afford him maintenance "because it was too much practiced by gentlewomen." Many a country practitioner of the present day could pen a similar petition with equal truth.—*Medical Press*.

Natural Labor.—Labor at the ninth calendar month in a woman free from organic and functional diseases of the heart, lungs, kidneys, brain, and other internal organs, and from all fever disease, and when there is no impediment in the material passages of either soft or hard nature to the descent of the child; when there is only one child in the womb; when the vertex of the child presents alone in either the first or the second occipito-anterior position; when labor is complete within twelve hours from its commencement; when a living child is born; when neither instrumental nor manual operations have been required: when the afterbirth comes away without the use of manual operation within twenty minutes after the birth of the child; when there is no laceration of any portion of the parturient structures; when the mother does not die within thirty-one days after confinement; and when there is no puerperal fever.—Dr. ROBERT R. RENTOUL, of Liverpool.

Fads and Fallacies of Rectal Surgery.—To the Manley operation for internal hemorrhoids, L. Straus (*Louisville Jour. Surg. and Med.*, July, 1898) makes the following objections: 1. Cocainization of the sphincters sufficient to make the operation painless, would endanger life. 2. Complete anal dilatation is necessary; if this were done efficiently serious shock would result unless a general anesthetic were given; this is especially the case in women. 3. Complete crushing of the tunics of the tumor is tedious, painful, and dangerous. Any procedure which requires the bringing about of a condition over which we have no control is unsurgical and unscientific. Outerbridge's operation for hemorrhoids receives the following criticisms: 1. For this operation, complete paralysis of the sphincters is required, complete divulsion should not be practised in all cases, certainly not in tubercular cases. 2. It is a long and bloody operation. 3. If union does not come by first intention, pus may form, and the result may be anything but satisfactory if not absolutely dangerous, because of the increased chances of sepsis. Should the suture give way the wound must heal by granulation over a large surface.—*Am. Med. Surg. Bulletin*.

Enormous Donation to the Jenner Institute of Preventive Medicine.—This institution, which until quite recently, was known as the British Institute of Preventive Medicine, received, two days before Christmas-day, the huge donation of £250,000 from Lord Iveagh. The circumstances under which Lord Iveagh's gift was made redound to his credit and also to that of the fortunate institution upon which his generosity has fallen.

His original determination was to hand over a very great sum of money to be spent in such directions as should appear to be of the greatest permanent benefit to the human race. The sum he fixed upon was half a million sterling, and after consideration and taking counsel with responsible advisers, he decided to devote £250,000 towards establishing sanitary buildings on a grand scale in one of the poorest quarters of his native city of Dublin—for Lord Iveagh is a scion of the Guinness family whose porter is famed from pole to pole—and £250,000 towards carrying on the "highest research work in bacteriology and other forms of biology bearing upon the causes, nature, prevention, and treatment of disease." The words we have quoted are those used by Lord Lister, Chairman of the Council of the Institute, in his grateful acknowledgement through the public press of Lord Iveagh's generosity. This generosity, in the opinion not only of medical men in England, but of enlightened men in every quarter of the globe, has been well directed. To provide the sinews of war with which to fight disease is to be the true benefactor of suffering man.

Infected Cigars.—It is stated in an American contemporary that the San Francisco Board of Health have discovered tubercle bacilli in the end of newly-manufactured cigars, and the explanation given of this is that many of the cigar makers are in the habit of moistening their fingers in the mouth preparatory to giving the final turn to the leaf at the end of the cigar. The allegation that by this repulsive habit the infection of tubercle could be conveyed is sufficiently important to demand attention. Apart, however, from this consideration, the idea that in the manufacture of cigars the polluted saliva of the operatives should be used, must come as an unpleasant revelation to most smokers. More information upon this subject is certainly desirable, both in the interests of the cigar manufacturers as well as of those who "take" their tobacco in this form. Despite the fact that the usual custom is to cut off the end of a cigar before smoking it, we nevertheless cannot see why, if the habit to which reference is here made prevails, it should be allowed to continue. A further disturbing feature is that tubercle is not the only malady which could be transmitted by infected saliva.—*Medical Press and Circular.*

Worthy of General Imitation.—The Boston *Medical and Surgical Journal* for January 26th, gives the following resolution which has been adopted by the Rochester Pathological Society: If any member be confronted with a suit at law for alleged malpractice, or similar charge, it shall be his duty to notify the Society. The president shall thereupon appoint a committee of three to investigate the merit of the action, to advise the member brought into litigation, and to recommend to the Society such measures as they consider should be taken.

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the NORTH CAROLINA MEDICAL JOURNAL, drop them a card in our favor.

Book Reviews.

A Text-Book of Obstetrics.—By Barton Cooke Hirst, M. D., Professor of Obstetrics in the University of Pennsylvania. With 653 Illustrations. Philadelphia: W. B. Saunders, 1898.

We have no hesitancy in commending this work to the student and practitioner of obstetrics. The author, so well known in his special line, is particularly fitted for the task he has undertaken, both from experience in private and hospital practice; while his training as a teacher has enabled him to give in a clear and comprehensive manner the salient points in the Science and Art of Obstetrics.

The subject is handled in a systematic fashion, each division being fully dealt with, and at the same time the text is condensed as far as is consistent with thoroughness. Part I. is devoted to Pregnancy, beginning with the anatomy of the Pelvis and ending with the Pathology of Pregnancy. Part II. The Physiology and Management of Labor and the Puerperium. Part III. The Mechanism of Labor. Part IV. The Pathology of Labor. Part V. Pathology of the Puerperium. Part VI. Obstetric Operation. Part VII. The New-Born Infant. The illustrations are abundant, and for the most part are made from original photographs and drawings.

An American Year-Book of Medicine and Surgery.—A Yearly Digest of Scientific Progress and Authoritative Opinion in all branches of Medicine and Surgery, drawn from journals, monographs, and text-books of the leading American and Foreign authors and investigators. Collected and arranged, with critical editorial comments, by eminent American specialists and teachers, under the general editorial charge of George M. Gould, M. D. One handsome, imperial, octavo, volume of about 1200 pages. Uniform in style, size, and general make-up with the "American Text-Book" Series. Cloth, \$6.50 net; Half Morocco, \$7.50 net. Sold by Subscription. W. B. Saunders, Publisher.

As the editor remarks in his preface, the most notable change in the present Year-Book is the absence from the list of contributors of the name of Dr. William Pepper. As the best possible compensation for this loss, Dr. Stengel and Dr. Edsall have undertaken the difficult and important department of General Medicine.

The prodigious labor involved in getting out a volume of this character can hardly be appreciated by one not actually engaged in the work. The immense mass of medical literature appearing in the course of a year's time, would seem to make the task of separating the wheat from the chaff a herculean one. That this has been done and all the matter carefully edited and arranged, the present Year-Book is a proof. *The London Lancet* says that in many respects it is more useful than the famous 'Jahrbucher' of Germany."

Prevention of Sore Nipples.—Dr. J. Melton Mabbott, in the *New York Medical Journal* of September 10th, claims good results from the following method of treating the nipples: For about four weeks the nipples are carefully rubbed every night with lanolin. The nipple is gently but thoroughly massaged with each application. In the morning this is washed off with warm water and some variety of good white soap. A soft brush must be used, by which the soap is thoroughly worked into the skin. This practice has the effect of producing a full and well-raised nipple. Further, it renders the skin very resistant to the influence of moisture in causing fissures.—*Canadian Medical Review*.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

The Eye as a Causative Factor in Functional Nervous Diseases.

Abstract of a paper presented to the Tri-State Medical Society of the Carolinas and Virginia, at the meeting in Charlotte, '99, by W. H. Wakefield, M. D.

The author stated, as a self evident proposition, that functional nervous disorders are now of more frequent occurrence among American people than formerly, and in accounting for this increase he cites, as prominent among causes, the changed habits of our people from an out-door life with much exercise to confinement in-doors with but little exercise, the children of muscle works, even muscle workers themselves, having become brain workers; the tremendous development of manufacturing and other employments that confine millions of workers in-doors, and require close attention on the part of the eyes for several hours daily; the break-neck speed at which many people live, owing to their devotion to business or pleasure; the early and prolonged use of the eyes in school, etc.

In contrasting the conditions under which we now live with those of fifty or seventy-five years ago, he brings out the fact that our grand parents took life easier than we do and spent much time in out-door work and amusements. In explaining the evil effects of prolonged application at close work it was shown that when the eye is normal it readily performs its increased duty, but when it is faulty in refraction (astigmatic or hyperopic) the burdens of prolonged close work are often beyond its ability to bear without strain, owing to the perplexities which accompany the act of seeing at short range when astigmatism, hyperopic or muscular weakness is present. The author showed that the act of adjusting the eyes in order that small objects may be clearly seen at from twelve to eighteen inches is extremely complex, requiring the co-ordination of the eight recti and two ciliary muscles, and if this close range must be continued for many hours daily by eyes whose refraction or muscle balance is abnormal, the reserve nervous energy of the body is consumed and nervous phenomena, such as headache, migraine, neuralgia, etc., ensue.

Hyperopia, myopia, astigmatism and muscular insufficiency were discussed and the part each plays in causing perplexities of the visual act demonstrated. One point insisted upon by the author was: When patients who are chronic sufferers from headache, browache neuralgia and chorea are not relieved in a reasonable time by medical and hygienic treatment the condition of their refraction should be looked into by one competent to perform that duty, and in support of his position he reported a few cases, one of which is given below:

Mrs. T., age 34. From childhood suffered from headache on reading or sewing—three years previous had bought a pair of No. 40 glasses from a jew-

eler. For the past two years has suffered much from sick headache. She is extremely nervous and for six months has been quite feeble, with capricious appetite, constipated bowels and headache growing worse; passes sleepless nights and suffers from what one of the best physicians in the State terms nervous dyspepsia. *She cannot read or sew more than 10 minutes without inducing severe pains in eyes and head*; is so prostrated that she cannot attend church. Her eyes were brought under the influence of atropin and a high degree of Hyperopic Astigmatism was found. Proper glasses were prescribed and worn and the patient, without any medication, progressed rapidly to a condition of health and comfort, gaining twenty-five pounds in weight in three months. Three other cases were reported, illustrating other phases of asthenopia, and all were relieved by aiding the overworked eyes. In conclusion the author says: "The position taken is that the number of persons consulting physicians for relief from some functional nervous disorder from which they suffer has materially increased during the last twenty-five or thirty years, and in accounting for this increase the exacting near work of civilization is shown to be causative by reason of the heavy burdens which it places on the ocular apparatus. It has been shown that when this apparatus is normal these burdens cause no serious inconvenience, but when certain abnormalities are present it labors at a disadvantage and the burden becomes onerous, resulting in muscular and nervous exhaustion more or less profound. The plan of treatment advocated and set forth in the report of cases is in line with one of the first principles involved in the healing art, viz.: Remove the cause, failing in this, counteract its effects."

Chronic Suppurations of the Middle Ear.—E. Schmiegelow describes ninety-six cases he has operated and gives tabulated details, in the *Nordiskt Med. Arkiv*, 1898, No. 17. He has operated over three hundred in all. In twenty-three cases the affection had lasted eleven to twenty years; in seventeen, from one to five years, and in one case between forty and fifty years. The mastoid apophysis was alone opened in twenty cases; with fifty-five per cent. cured; in the rest the otitis was not arrested. The attic was opened in fourteen cases; seven were cured, three improved; one relapsed, and in two the result is unknown. In fifty-three cases the entire middle ear was opened and seventy per cent. cured. In seven cases the operation was not completed. In nine cases there was improvement; three cases died—miliary tuberculosis, or meningitis. The transverse sinus was opened once. In four cases the operation was followed by traumatic facial paralysis. He states that the patient must be prepared for the tediousness of the after-treatment. In one of his cases it required a year and a half; in several six to nine months, but the average limit was from two to four. In fifty-eight cases nothing could be learned as to the etiology. In ten, it commenced as an acute suppuration after influenza. In three, it was evidently a carious process due to the presence of adenoid vegetations. In four cases the suppuration was tuberculous. In two it was the result of whooping-cough, in eleven of scarlet fever, in two of measles, in five of

trauma, and in one case there was a carcinomatous growth. The hearing was unaltered after the complete operation in eight; more or less improved in twenty-seven.—*Journal of the American Medical Association*.

The Hygiene of the Ears.—*Cincinnati Lancet-Clinic*.—Bishop.—Few people over 50 or 60 years have normal hearing, and defective hearing is more common in males than in females. The author claims that one-third of all cases of deafness is due to scarlet fever, but this will not be found the case in the Carolinas. The statement that about one-fifth of all causes producing deafness are hereditary, and that diseases of the ear causing deafness are often the result of constitutional diathesis is borne out by the editors' experience.

One strong point made by the author is this: Troubles of the ear are too often neglected—left to unaided nature to heal. There is a point of time in the history of most cases of ear diseases where a cure can be effected.

Protargol in Ocular Therapeutics.—In a discussion upon some of the modern drugs before the Louisville Medico-Chirurgical Society (*American Therapist*, January 7, 1899), Dr. Wm. Cheatham stated that since resorting to the use of protargol in diseases of the eye, he had done away with the nitrate of silver almost entirely. He had used protargol in all forms of conjunctival inflammation, especially in conjunctivitis with purulent secretion. In ophthalmia neonatorum he had found it much superior to silver nitrate, and it produced much less irritation, did not stain the eye, and penetrated far more deeply. Dr. J. M. Ray has also observed that protargol has a decided beneficial influence upon the pus flow in ophthalmia neonatorum, and considered it a very valuable remedy in ordinary cases of conjunctivitis. Dr. S. G. Dabney expressed the opinion that protargol had come to stay. He believed that it would be an advantage to increase the strength of the solutions from 3 to 5 per cent. in eye diseases, and stated that it could be employed as strong as 10 per cent., or even stronger.

In a recent discussion before the section of Pediatrics of the New York Academy of Medicine, Dr. Edward S. Peck also reported some remarkably favorable effects from the use of protargol in purulent ophthalmia in infants. He thought that it might be advantageously substituted for nitrate of silver in the Crede method against ophthalmia neonatorum. He had put 10 per cent. solutions of protargol into his own eye, and had found it very much less irritating than a one-half of one per cent. solution of cocain. Dr. E. S. Thompson believed that it was as good a germicide as silver nitrate, and decidedly less irritating.

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.

Therapeutic Bints.

Liniment for Counter-Irritation in Chest-Affections.—

Vinegar Canthar, 2 fl. dr.

Spt. Camphor, 3 fl. oz.

Liniment for application to the chest at night,

—GUYON, *Medical News*.

Rheumatic Liniment.—

Tr. Camphor }
Tr. Opium } of each $\frac{1}{2}$ fl. oz.
Spt. Ammonia }
Olive oil, 1 fl. oz.

Apply on the affected part.

—DUNGLISON.

Aphonia and Hoarseness.—

Potassium Bichromate, $\frac{1}{100}$ grn.

Take a dose this size every hour.

This remedy will be found speedily efficacious in hoarseness due to excessive action of the vocal cords or resulting from an acute cold.

—*Medical Standard*.

Catarrh of the Upper Air-Passages.—

Menthol, 4 parts.

Eucalyptol, 2.5 parts.

Terpinol, 2 parts.

Oil Pinus Sylvestris, 1 part.

A few drops are to be poured into a bottle and the latter heated over an alcohol lamp. The bottle will be immediately filled with balsamic vapors, which the patient is to inhale.

—KAFEMANN, *Phil. Med. Jour*.

For lumbago try 5 to 10 drops of tr. gelsemium every three or four hours, or a less quantity oftener. It is not a specific for this painful trouble, but comes nearer to being one than anything else.

—*Western Med. Review*.

Formula for Blaud's Pills as used in Pennsylvania Hospital.—

Mass of ferrous carbonate, 36 grains.

Potassium sulphate, 24 grains.

Potassium carbonate, 4 grains.

Powdered althea, 1 grain.

Powdered acacia, sufficient.

Make into 12 pills, and enclose in No. 4 gelatin capsules.

Irritable Bladder After Confinement.—

R Salol,

Tinct. hyoscyami, āā 3 ij.

Infus. buchu, q. s. ad $\frac{3}{4}$ vi.

M. S. Tablespoonful three times a day.

DR. W. E. FOTHERGILL.

Headaches.—

R Sodii brom, 3 i.

Phenacetin, gr. xxx.

Caffein, citrat, gr. xvij.

Sodii bicarb, 3 i

• M. et ft. chart. No. vi. S. One every fifteen minutes till relieved, to be followed by a Seidlitz powder.

—DR. M. STALLER.

Reading Notices.

OGDENSBURG, N. J.

THE HAMMOND TYPEWRITER CO.
NEW YORK,

GENTLEMEN:—More than three years ago I gave you the following testimonial: "I purchased one of your machines over five years ago, and have never regretted my choice. The machine has served me faithfully and well, performing an almost incredible amount of work, and notwithstanding its hard service is still doing as good writing as when new." And now, when the old machine is well into its ninth year of service, I can hardly say anything more in its praise. Last year it turned out twenty-six (26) complete novels, including my Chicago Record prize story—more than a million words of matter, to say nothing about correspondence. You can see for yourself the kind of writing it is still doing. If I were now to buy a new machine, it would be to enjoy the improvements and not because the old instrument had outlived its usefulness. For literary workers, the Hammond has no peer.

Very truly yours,

(Signed) J. C. COWDRICK.

NEW YORK, Feb. 19, 1899.

WM. R. WARNER & Co.,

DEAR SIR:—I write to congratulate you on your very remarkable facilities for business. The goods which I ordered from your Mr. Hillegass Saturday 8:30 A. M., were delivered 8:30 P. M., of the same day with bill. I doubt if this could be duplicated by any other firm in the country. With regret for your misfortune and best wishes for the future, I remain,

Truly yours,

J. S. READING.

The attention of the profession is called to the card of Messrs. Finger and Anthony, silversmiths. These gentlemen are prepared to replate old surgical instruments, and from personal experience we can testify to the fact that they do good work at reasonable charges.

Senna Leaves for Chronic Constipation.—SIR: Dr. Rockwell's remarks in the *Medical Record* of December 10, 1898, in regard to the apple diet as a treatment for chronic constipation, are both timely and true, as I can attest from my own personal experience. But there are cases that even the apple diet will not relieve; such cases I have met with, and doubtless the majority of physicians have. In such cases I recommend a very simple, inexpensive, not at all unpleasant, and with me very effective treatment, viz., the eating just before going to bed of a teaspoonful to a tablespoonful of senna leaves. The patient will soon learn the amount of leaves necessary for his individual case. A dozen leaves is quite sufficient for some, while others require several dozen. I have had this remedy give relief to cases of more than twenty years' standing, and I cannot now recall a case in which relief has not been afforded.

BARTON DOZIER, M. D.

If you see anything in this journal that you differ from, write us about it; if you see what exactly agrees with your views and experience, write about that also. Give us the benefit of your views. Send us reports of interesting cases.

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Original Communications.

The Medical Treatment of Appendicitis, Or Appendicitis Without Operation.

By CHAS. B. McANALLY, Madison, N. C.

MY excuse for presenting this paper to you, is that my own experience does not always teach me that every case of appendicitis demands the treatment that now seems so universally popular, not only with surgeons, strictly speaking, but also with the profession generally—and I mean by that surgical interference.

During my few years of professional work it has been my good fortune to be confined largely to the practice of general medicine. Having this work both in town and country, you will readily understand the advantage such a situation is to the observation of any special disease or diseased conditions. We all, every day of our professional life see the vast difference of disease, even of its characteristics, as found in our patients in the various professions and environments of individual cases. My experience with appendicitis began almost in the very commencement of my practice ten or twelve years ago. But, with one or two exceptions, I have never been fully convinced of the necessity of an operation for its relief, and these exceptions were in cases receiving no medical treatment until there was extensive local peritonitis complicating the primary trouble. The history of five cases occurring in my practice and three in that of Dr. W. J. McAnally during the past eighteen months will be sufficient to demonstrate what has caused me to be perhaps over conservative as regards surgical treatment of these cases. I would not for a moment have you understand that I do not believe in operating for the cure of a great many of these cases, for I do know that there are cases that only this will offer any hope—even some of the cases that are relieved by medical treatment will, I doubt not ultimately demand the entire removal of the appendix and its surrounding irritating inflammatory products. Sept. 30th, 97, I was called to see (G. S.) a young man seventeen years of age, farmer. Good family, good history, etc. I found him in bed, lying on his right side, with his knees brought forward towards abdomen. Face rather pale and

somewhat drawn, with small red spot on cheeks, eyes bright and watchful, tongue large, white coated and pointed, brownish on back part. Breath very offensive. Complained of severe pain in right iliac region, sometimes radiating up beyond umbilicus, no appetite, not able to rest for three or four days prior to my visit, and gave following history: Five days before this, was in field pulling fodder when he noticed a slight heaviness in his lower right part of abdomen and felt disposed to take shorter steps with his right foot than with his left, and that it relieved him to lean forward and keep his body, as regarded his right leg, as nearly immovable, as possible, and in a slightly forward position. He finally came home and laid down for a few hours. Then got up and walked about a little, but all the time had that uneasy feeling in "lower right side." He passed two days this way, with only a little more pain, etc., until the third day, when he was compelled to take to his bed and had remained there. Suffering more and more each day. Bowels had moved during first two days one time each day and one time during the last three days and had eaten nothing since he first complained. I found his temperature 102, pulse 98. Extremely tender over the right iliac region, no distention of bowels, except skin just a little tense and full over the tender area, lying on his back, could lie flat, but would almost immediately flex his right leg on body, saying it gave him pain in his bowels or right side to straighten out.

I made diagnosis of appendicitis and prescribed and gave Calomel and Bi Carb. Soda, gr. xv each. M. Div. in 15 powders; one every half hour until all are given. This was at 4 p. m., and was to be followed early next morning with tablespoonful of Epsom salts. I also prescribed 30 drops Spts. Turpentine internally and stupes to bowels under warm applications of bran, meal or wood ashes. In case this did not relieve pain, I left $\frac{1}{2}$ doz. doses of $\frac{1}{4}$ gr. Sulph. Morph. to be given every hour until four were taken or relief given.

I saw him next day at 2 p. m. Found his general condition about the same, temperature 101, pulse 115, tenderness still severe, but had gotten a little sleep after taking two doses of morphia, bowels open freely, urine free, no appetite, a little increase of the tension over tender region. Former treatment repeated, except acetanilid and caffein were given instead of morphia. Not being fully satisfied with his condition, I asked for a consultation, and next day at 4 p. m., I saw him with Dr. C. Patient was much better in almost every respect. Had had copious stools, rested well four hours and had asked for a little milk, tympanitic quality of bowels about same, temperature 101, pulse 110, pain very much relieved, tongue still heavily coated and breath foul. The doctor agreed with my diagnosis and recommended the treatment continued, which was done, except only enough of the purgative was given to keep bowels freely open. Patient made an uninterrupted recovery, and within two weeks was able to be out at his usual work. He has had no unpleasant symptoms from it since.

Case No. 2 was T. W., a school boy, 12 years old, gave the following history: Was playing at school when he noticed that he was inclined to

bend forwards towards his right side when he was running. As he went home in the evening he found himself able to walk all right, but was a little sore in the lower right side of bowels. This was Friday. Saturday and Sunday he felt irritable, without appetite, a general feeling of drowsiness with slight pain in the lower right side of bowels and up above his navel, and spent his time lying about. All these symptoms increased until I saw him on the Thursday following. He had not been back to school, I found him lying on his back, with right leg flexed unable to lie any other way with comfort—very tender over right iliac region, very considerable tympanitis, but no tenderness at any other point, pulse 102, temperature $102\frac{1}{2}$, bowels constipated, very thirsty, no appetite, not able to sleep. Same treatment as in former case, except acetanilid and caffeine given with the morphia and turpentine every 4 hours. Saw him next day, found temperature 102, pulse 110, stools 5, since I saw him the same time the day before. Treatment was continued 24 hours, when I found him much better, but with considerable tenderness over the region of the appendix. The mercury and soda were continued in half quantity, which was deemed sufficient to keep bowels free 3 or 4 times a day. Only liquid food allowed in any case, and at end of 10 days patient was up, but carried himself a little stiff with the muscles of right side for a week or two more. In this case I am confident that there were adhesions of some extent as upon close examination there were tenderness and some fullness over the region of first tenderness. But no further trouble has come to him and if there was an unopened abscess it has not so far given trouble.

Third case, young man 26 years of age, family history good, personal history good. Was taken on 18th December, 1898, with severe pain in bowels. He thought he had "cramp colic." Took a big dose of whiskey, got some relief for a few hours, but still had cramping pains in lower right side of bowels. This continued 3 days, when he sent for me. I found him suffering intensely with pain over right side of bowels low down even below the region of appendix. I suspected strangulative hernia from his immediate condition, but on close examination, I found tenderness of the iliac region, no appearance of any scrotal hernia and no tenderness of the cord. The muscles were held so tense I could not satisfactorily distinguish any tumor. This patient had been very sick at stomach, but was somewhat relieved of that before I saw him. Found temperature 100, pulse 108, deeply coated tongue, breath very offensive, bowels constipated. I at once gave calomel and soda as in previous cases, and had an enema of hot water, castor oil and turpentine given at once, with directions to repeat every 2 hours, until free evacuation of bowels was secured. Also gave morphia and acetanilid, four $\frac{1}{4}$ gr. doses of morphia to be given once each hour until relieved of pain. Acetanilid given in 5 gr. doses every 2 hours for 3 doses, then to be given every 4 hours. Saw him next day, found him well purged, water free, temperature 99, pulse 90, diet was regulated, and treatment continued, but modified as symptoms were relieved, 7 days after patient was up and has suffered no relapse. The other

cases were similar except the pain in the beginning was higher up and was only localized at appendix after first 24 hours. Treatment was same and all recovered.

The following three cases were reported to me by Dr. W. J. McAnally, as above stated.

Case 1. Mrs. C., age twenty-nine, was taken with severe pain in right iliac region, January 24, 1898, fever, headache, anorexia and constipation followed the occurrence of pain, through abdomen, and on the 25th, I was called to see her. Found the patient lying on her back with right leg drawn up and the abdominal muscles especially of the right side were very rigid. There was marked tenderness over McBurny's point, and pulse was 104, temperature 102.5, tongue coated and no desire for food. I prescribed 3 ss. Epsom salts at once, turpentine sutps over the tender point, and 1 gr. doses of a powder, 70 parts acetanilide, 20 Bicarb. Sod, 10 Cit. Caff., every 3 to 4 hours with $\frac{1}{8}$ gr. of morphia as often as necessary to keep patient easy. Grains v. of Quin. Sul. tid., and allowed no solid food, gave milk in small quantities every 2 to 4 hours, albumen water and egg-nog were taken several times a day. With this treatment the patient was kept easy and fever was never above 103. The Epsom salts was given every evening and one to two movements from the bowels secured each day. The patient vomited several times during the attack, but I thought perhaps the morphia caused it. At no time during the sickness could I detect a tumor, but on the 7th day about one ounce of pus was passed with the morning evacuation. There was no more fever and all symptoms gradually subsided except the tenderness over McBurny's point. The patient was up doing her work in another week from the time the pus was passed, but she was weak and pale. The tenderness never did entirely leave and about six weeks after the first attack she had a second one but much less severe than the former. The same treatment brought her out again in 3 or 4 days. Tenderness all subsided after this and she has had no more trouble. Gude's Pepto Mangan was given to build her up.

Case 2, Mrs. M., aged 42, on the 9th of June, 1898, was taken with severe pain in the right iliac region. The same day I was called to see her, found her temperature 101, and pulse 99, much soreness in region of appendix, abdominal muscles on right side were tense, tongue coated. Diagnosis, appendicitis, gave about same treatment as for case 1. Fever did not get over 102. And in six days she was up and going about the house. She had some soreness about the appendix for several weeks, and was anemic. Gave Tr. Ferri. Chlor. mx. to xv. doses tid and she soon improved and has since had no trouble.

Case 3, Mrs. D. I. C. During the second week of August, 1898, complained of pain and soreness in the right iliac region, but as she had given birth to a ten pound boy the 20th of July, she thought this soreness was the result of the labor. On the 10th of August, I was called to see her, temperature was 103, pulse 108, tongue was coated and it was easy to feel a tumor in region of appendix. Patient was of course in bed and had been there two

days when I first saw her. The abdominal walls were tense on the right side and the right knee was drawn up. Diagnosed appendicitis and followed the same plan of treatment as used in cases 1 and 2. The morphia kept the patient tolerably comfortable and the Epson Salts moved the bowels nicely each day. The feeding was the same as for the other cases, and with this simple treatment she got along nicely. On the 16th she passed several ounces of pus, for three days after this a little pus was seen with each passage. All the symptoms except the soreness disappeared almost immediately. As late as November 10th, she would feel sore in her right side after walk of a half-mile.

The advocates of operative intervention in all cases of appendicitis, advise early operation, some have even gone so far as to say that it must be done within the first 24 hours. I have no hesitancy in saying that to follow this rule absolutely, there would be no operations, as in 95 per cent. of the cases we see, we are not called until the third or fourth day. We may sometimes be called earlier, when the attack is preceded or ushered in by those sympathetic pains above the umbilicus or over the region of the sympathetic ganglion. These are the cases of colic we often meet. Prof. Nothag1, of, Vienna, one of the leading clinical observers and teachers of the world, declares that more than 80 per cent. of all cases of appendicitis will recover under medical treatment. He, however, like the late Prof. A. L. Loomis, advises the opium treatment, and not the combination treatment I have mentioned and used. My experience has been so satisfactory with my own treatment that I shall hesitate to depart from it, until at least I meet with such reverses as shall justify the change. I wish to say just here, that I think perhaps after the initial treatment with the mercurial, almost any of the various evacuants would answer in its stead. I have seen thalion (a laxative salt of lithia) highly recommended in similar conditions, but have never used it myself.

The Care of the Sick and Wounded in the War of the Revolution.*

By FRANCIS R. PACKARD, PHILADELPHIA, PA.

Late Assistant Surgeon 2nd Penn. Vol. Inf.

At the outbreak of hostilities between Great Britain and the Colonists the latter possessed no regularly organized army and of course had no system for the care of such of their number as might be wounded or become sick, but there was no lack of voluntary medical aid and surgical assistance rendered by the profession to the earlier sufferers in their country's cause. The medical profession not only lent its professional skill but it also actively aided the Revolutionists by acting in the councils of the Colonists, serving as political agitators, and acting upon the vigilance committees which were so extensively organized. It was due to the vigilance of Dr. Joseph Warren, who was President of the Provincial Congress of Massachusetts that the

*An address delivered before the Judson Daland Med. Society, January 8th, 1899.

knowledge that the British troops intended to march on Concord, was obtained, and it was by Dr. Prescott, Brigadier General of the Colonial Militia of that colony that the information was conveyed to the inhabitants.

Toner (Medical Men of the Revolution) mentions the names of nine physicians who furnished succor to those wounded in the fights of April 19, 1775, viz; Dr. William Aspinwall, John Brooks, John Cuning, William Dexter, Eliphalet Downer, Timothy Minot, Oliver Prescott, Joseph Warren, and Thomas Welch. Almost all of these men were of high professional standing. Doctor Aspinwall is said to have acquired more skill and celebrity in the treatment of smallpox than any other physician of his time in New England.

In the time before the discovery of vaccination when the custom was to inoculate for smallpox, he had the reputation of having performed the operation more often than anyone else. He had a private hospital for that purpose in Brookline, Massachusetts. Thatcher (2) says, "He continued in the successful treatment of this disease [by this method] till the general introduction of vaccine inoculation. He had made ample accommodation for enlarged practice, and established what might have been justly deemed a sure foundation for prosperity, when vaccine inoculation was first introduced. He well knew that if vaccination possessed the virtues ascribed to it, his schemes of fortune and usefulness arising from inoculation at his hospital, were ruined, that he should be involved in loss and his anticipations of fortune would be blasted. But as an honest man and faithful physician, he deemed it his duty to inquire into the efficacy of the novel institute. With the utmost alacrity, therefore, he gave the experiment a fair trial, promptly acknowledged its efficacy, and relinquished his own establishment."

John Brooks was a fellow-student of the famous Count Rumford, under the celebrated Dr. Simon Tufts, Jr. He was engaged in the practice of his profession in the town of Reading, Massachusetts at the outbreak of the Revolution, but he abandoned it and joined the Revolutionary army as a captain, and when the war closed had attained the rank of colonel. He resumed his medical pursuits in Medford, Massachusetts, but continued to take an active part in public life, ultimately becoming Governor of the State.

Doctor John Cumming was a colonel in the colonial militia and a member of the Provincial Congress, but it is sad to record that he was possessed of such a faint heart that, owing to their lack of military resources, he became convinced the colonists would not succeed in throwing off the yoke of Great Britain, and consequently he resigned his positions and retired into private life soon after the conflict began.

However this course does not seem to have prevented his subsequently acquiring a very large practice and leading a highly successful professional life.

Dr. Joseph Warren was the famous patriot who was afterwards slain at the battle of Bunker Hill and whose death was justly mourned as one of the greatest losses that could have befallen the infant nation.

Dr. Oliver Prescott, Jr., was extremely active in advancing the patriot cause from an early date. He was a member of the Provincial Congress of Massachusetts and became a major-general of the militia of the colony.

Eliphalet Downer practiced medicine in Roxbury, Massachusetts, he became a regimental surgeon in the Continental army, and subsequently was surgeon to the cutter "Dolphin."

Dr. Thomas Welch graduated from Harvard in 1772 and was later surgeon to the 27th Continental regiment.

Dr. William Ward continued in the Continental Army, first as a surgeon's mate, in which capacity he served at Bunker Hill, afterwards as surgeon.

Dr. Timothy Minot graduated at Harvard in class of 1747. He practiced medicine in Concord, Massachusetts, and was highly successful.

The American soldiers who were wounded in the battle of Bunker Hill were removed to the northern and western sides of the hill, where they were attended to by the surgeons accompanying the army. Frothingham (3) mentions the following surgeons as attached to regiments engaged in that action, namely: David Jones, Surgeon of Colonel Samuel Gerrish's Massachusetts Regiment; Obadiah Williams, Surgeon of Col. John Stack's New Hampshire Regiment; Ezra Green, Surgeon of Colonel James Reed's Regiment; Thomas Kittredge, Surgeon of Colonel James Frye's Regiment. Lieutenant-Colonel Bricket, of Colonel Frye's Regiment, was a physician and seems to have served in a medical, rather than a military capacity throughout the engagement. The following names are also mentioned as aiding in giving relief to the wounded, viz. William Eustis, Walter Hastings Thomas Welch, Isaac Foster, David Townsend and John Hart.

After the battle and subsequently to the various fights about Boston the wounded were removed to houses, which were converted into temporary hospitals, in Charleston, Watertown, Roxbury and Cambridge. In Edward Warren's, *Life of John Warren*, there is a letter from the latter to John Hancock, in which he writes that four houses had been appropriated in Cambridge and were named respectively, Washington, Putnam, Lee and the Convalescent hospital. They were occupied by about three-hundred and fifty patients, and there were also three houses in Roxbury which were being utilized in a similar manner.

It became necessary later in the history of the camp about Boston to provide a special hospital for the accommodation of a number of small pox patients, that disease having appeared among the soldiers. On June 27, 1775 the Provincial Congress of Massachusetts ordered such a hospital to be opened. It was of course of prime importance that the manner of appointment of medical officers and the establishment of hospitals should be systematized and provided for at an early date. The Provincial Congress of Massachusetts on

(3 Siege of Boston.)

June 19th, 1775, took the matter in hand and appointed Doctors Church, Taylor and Whiting a committee to "consider what method is proper to be taken to supply the hospitals with surgeons," and also to report on the necessary equipment for the establishment of hospitals for the troops.

On the 22nd of June, three days later, the commanding officers of the Massachusetts regiments were ordered to present to this committee the names of the medical men who were desirous of serving as surgeons or surgeon's mates in their respective commands, and to cause these gentlemen to present themselves before the committee for examination as to their qualifications for the positious.

James Thacher (Military Journal) has left us an interesting account of the manner in which he received his first appointment in the medical department of the Revolutionary army. In 1775 he had just completed his medical studies under Docter Hersey, of Barnstable, Massachusetts, and he solicited an appointment in the hospital at Cambridge. A medical board consisting of Doctors Holton and Taylor had been appointed to examine the candidates, and on the day fixed for that purpose he appeared before them. "On the day appointed the medical candidates, sixteen in number, were summoned before the board for examination. This business occupied about four hours; the subjects were anatomy, physiology, surgery, and medicine. It was not long after that I was happily relieved from suspense, by receiving the sanction and acceptance of the board, with some acceptable instructions relative to the faithful discharge of duty, and the humane treatment of those soldiers who may have the misfortune to require my assistance. Six of our number were privately rejected as being found unqualified. The examination was in a considerable degree close and severe, which occasioned not a little agitation in our ranks. But it was on another occasion, as I am told, that a candidate under examination was agitated into a state of perspiration, and being required to describe the mode of treatment in rheumatism, among other remedies he would promote a sweat, and being asked how he would effect this with his patient, after some hesitation he replied, "I would have him examined by a medical committee."

All which tend to show us that the examinations were sufficiently rigorous in character to maintain a high standard in the medical corps of the Massachusetts troops. In the other colonies however medical appointments seem to have been made in a most haphazard manner, without any regular system whatever. I transcribe a curious petition to the Provincial Congress of New York, for a medical position. There were many similar to this presented and in a great number of instances the applicant seems to have been appointed solely on the strength of his petition:

"John Hammell to the Provincial Congress, Gentlemen: Having served an apprenticeship of seven years to Englebard Kemmena, practitioner of physic and surgeon of the city of New York; in which capacity being desirous of joining the forces now raising in this Province for the maintenance of our rights and privileges, beg leave to lay myself before the Honorable

House for Its approbation a Recommendation of my character, and abilities, which desirous to support, I have here enclosed, wishing to have the honour of being your humble servant.

JOHN HAMMELL.

New York, Tuesday afternoon, 4th July, 1775.

"John Hammell, of the city of New York, having studied Physick and Surgery by me with the strictest attention full seven years, during which time he hath conducted himself with the greatest honesty, and sobriety, and convinced of his being capable of practising, do commend him to any person that may occasion assistance of the faculty.

ENGLEBART KEMMENA.

New York, July 3rd, 1775.

It was not until September, 1776 that Congress made an effort to fix medical appointments on a uniform basis throughout the entire continental army. On September 30, 1776 Congress, "recommended to the legislature of the United States to appoint gentlemen in their respective States skilful in physics and surgery, to examine those who offer to serve as surgeons, as surgeon's mates in the army or navy; and that no surgeon or mate shall hereafter receive a commission or warrant to act as such in the army or navy who shall not produce a certificate from some one of the examiners so as to be appointed, to prove that he is qualified to execute the office. That all regimental surgeons and mates, as well as those of the hospital, be subject to the direction and control of the directors in the several departments."

General Washington always manifested the greatest solicitude that the medical department of the army should be kept upon the highest plane of efficiency. Soon after joining the army engaged in the siege of Boston he made a personal visit of inspection to all the hospitals that had been established in the camp and the neighboring towns, and in a letter dated September 24th, 1776, he writes, "No less attention should be paid to the choice of surgeons than other officers of the army. They should undergo a regular examination, and if not appointed by the Director General and surgeons of the hospital, they ought to be subordinate to and governed by his directions."

Thacher relates the following incident, which well illustrates the anxiety of the people for the welfare of such of their defenders as might be ill or wounded, and also how acutely sensitive the commander-in-chief was upon the same point. "I am sorry to have occasion to notice in my journal the following occurrence: The body of a soldier has been taken from his grave for the purpose, probably of dissection, and the empty coffin left exposed. This affair occasions considerable excitement among our people; both resentment and grief are manifested; as it seems to impress the idea that a soldier's body is held in no estimation after death. Such a practice, if continued, might be attended with serious consequences, as it affects our soldiers. Much inquiry has been made, but without success, for the discovery of the persons concerned; and the practice in future is strictly prohibited by the commander-in-chief."

The Provincial Congress of Massachusetts, as we have seen, took the matter of the organization of the medical department in hand at an early

date, and the records of the Congress contain many resolutions in regard to it. No other colony seems to have attached the same degree of importance to this intricate subject. In most other instances the medical care of the soldiers seems to have been regarded as a subsidiary matter and it was not until the Congress of the United States took up the subject and promulgated a set of uniform regulations for the medical service that in many States any organization at all had been effected.

On June 28, 1775, the Provincial Congress of Massachusetts voted "that there shall be two surgeons and two mates appointed for each hospital and commissioned accordingly." The pay of the surgeons was fixed at eight pounds a month, and each mate was to receive four pounds ten shillings a month.

On June 28, 1775, the following was adopted as the form of commission for surgeons in the Massachusetts troops:

"The Congress of the Massachusetts Bay. To A. B. Greeling:—Being informed of your skill in surgery, and reposing special trust and confidence in your ability and good conduct, we do by these presents constitute and appoint you, the said A. B., to be surgeon of the regiment on foot, whereof _____ is Colonel, raised by the Congress aforesaid, for the defense of said Colony. You are, therefore, carefully and diligently to discharge the duty of a surgeon to the said regiment, in all things appearing thereunto, observing such orders and instructions as you shall from time to time receive from the colonel of said regiment, according to military rules and discipline established by said Congress, or any of your superior officers, for which this shall be your sufficient warrant."

On July 17th, 1775 Congress appointed a Committee consisting of Mr. Paine, of Massachusetts, Mr. Lewis, of New York, and Mr. Middleton, of South Carolina, to report on the most suitable plan for the organization of the General Hospital service of the Continental army.

On July 27th, 1775 Congress passed the following resolution:

Resolved, that for the establishment of an Hospital for an army, consisting of 20,000 men, the following officers and other attendants be appointed, with the following allowance and pay:

A Director-General and Chief Physician, his pay four dollars per day.

Four Surgeons per day, each one and a third dollars.

One Apothecary, one and a third dollars.

Twenty Mates, each per day, two thirds dollar.

One Clerk, two thirds dollar.

Two storekeepers, each four dollars per month.

One nurse to every ten sick, one fifteenth of a dollar per day, or two dollars per month.

Labourers occasionally.

That the appointment of the four surgeons and the apothecary be left to the Director-General and Chief Physician. That the mates be appointed by the Surgeons, and that the number do not exceed twenty; and that the

number be not kept on constant pay, unless the sick and wounded should be so numerous as to require the attendance of twenty, and to be dismissed as circumstances will admit; for which purpose the pay is fixed by the day, that they may only receive pay for actual service. That the Clerk, Storekeepers, and Nurses be appointed by the Director.

Doctor Benjamin Church, of Boston, one of the best known physicians in New England, was appointed the first Director General and Chief Physician of the army. Apparently the choice could not have fallen upon one more fitted to properly perform the functions of the office. He had graduated from Harvard in 1754, and besides his professional reputation he was well known as a wit and the author of some poetical effusions of no mean merit. He had always loudly espoused the Whig cause and stood in very great esteem as an ardent patriot. Within a few months after his appointment, however, he was detected in a treasonable correspondence with the enemy. In October, 1775, he was tried by a general court martial over which General Washington himself presided. Thacher says that the evidence upon which his conviction was based rested upon an intercepted letter to a friend in Boston, which was written in cipher; "and when deciphered and examined, its contents seemed in a considerable degree to justify the plea which he had made that it was designed as an innocent stratagem to deceive and draw from the enemy some information for the benefit of the public." Many respectable and intelligent persons held that his guilt was never established. However, the court martial found him guilty. He was placed in prison, but in the following year obtained permission to go to the West Indies. Nothing was ever heard of the ship in which he sailed from the time she left port and it was supposed that she foundered at sea and was lost with all on board.

He was succeeded as Director General and Chief Physician by Doctor John Morgan, one of the most famous men of his time. Dr. Morgan was a native of Philadelphia and one of the first graduates of the College of Philadelphia, from which institution he received his degree in arts in 1757. He served a term of six years as apprentice to Doctor John Redman and at the conclusion of that period served for four years as a military surgeon with the Pennsylvania troops against the French. He went to Europe in 1760, and received the degree of Doctor of Medicine from the University of Edinburgh in 1763. He continued his studies in various cities on the Continent and did not return to his native city until 1765. He was one of the founders of the medical department of the University of Pennsylvania, and likewise of the American Philosophical Society.

Dr. Morgan received his appointment in October, 1775 and at once joined the army engaged in various operations in the immediate neighborhood of Boston. From the outset of his military career he resolutely set his face to combat the many evils which daily resulted to the sick and wounded from the lack of organization and the loose discipline which prevailed in the medical department. He required candidates for the last named branch of the service to pass rigid examinations and he exercised a vigilant supervision over the behaviour and work of the members of the corps.

There was much jealousy and disputation between the regimental surgeons and those attached to the general hospital service. It seemed best that all supplies to regimental medical officers should be dealt out from the general hospital stores and that the latter should thus be in some measure able to control the disposition to be made of the stores. This was resented by the regimental surgeons as infringing upon their rights. Another source of contention was found in the orders issued that the sick as far as possible should be transferred from the regimental hospital to the general hospital. The greatest difficulty confronting Doctor Morgan, however, was that of obtaining hospital supplies. The finances of the Continental Army were never in particularly fine condition; but during Doctor Morgan's career as chief of the medical department they were at a particularly low ebb. Bandages, lint and medicines were only to be had with the greatest difficulty, and that he got them at all seems to have been due to the energy and perseverance with which he nagged at Congress about the necessities of the sick. All these efforts of Doctor Morgan to ameliorate the sufferings of those who fell under his care rendered him extremely obnoxious to very many of the medical officers of the army, and a large party of interested persons who profited in one way or another from the previous disorderly condition of medical affairs. Much of the suffering arising from the lack of supplies was attributed to him by those anxious to screen their own delinquencies in not procuring them for the army. The northern department of the army was in charge of Doctor Stringer and had fallen into a disgraceful state of confusion from lack of discipline and from the ignorance of the most ordinary medical matters, displayed by the surgeons connected with it. This condition could not be justly be blamed upon Doctor Morgan, as he had repeatedly endeavored to rectify it without avail. Nevertheless much stock was made of the wretched state of things prevailing in the Northern department by his enemies, who said he was responsible for the whole matter. They succeeded in inducing Congress to slight Morgan in various ways, which caused him to complain frequently and bitterly to Washington. The latter seems to have been a steadfast and sincere friend of the doctor's from first to last in his many troubles. By Washington's permission he finally went to Philadelphia from Trenton, at which place the army was in temporary quarters, for the purpose of seeking an explanation of the various indignities and vexations which had been put upon him. Congress directed Samuel Adams to attend to his case and, and what was the doctor's indignation when Adams informed him that Congress attributed to him much of the suffering and distress undergone by the sick and wounded. Morgan demanded that he be introduced in Congress and allowed an opportunity to vindicate himself. This was refused, on the ground that the attention of that august body was fully occupied by more urgent matters. With the most admirable self control and magnanimous patriotism he returned to Trenton and determined to continue at his thankless task in the interest of his country without regard to the ingratitude of Congress. He was ordered by the latter to take charge of the sick on the eastern side of the Hudson

and at once obeyed without question. On February 1st, 1777 he sent a memorial to Washington, detailing the amount of work he had done, the plans he had formulated and desiring a court of inquiry on his conduct, but on January, 7th, 1777, just after Washington had received it, Congress dismissed him from the office of Director-General and Chief Physician of the Hospital, without vouchsafing any explanation as to why such action was found necessary.

From the moment of his discharge Doctor Morgan devoted himself to the task of obtaining an official vindication from the body which had so shamefully mistreated him. His patriotism was so great, however, that he sank his personal feelings in his love for his country and continued to aid in the work of the medical department. Doctor Norris ⁵ quotes the following letter of his to a friend, and I transcribe it fully as illustrating the doctor's greatness of soul in the midsts of his misfortunes.

"It is an act into which they were suddenly forced by a party whom political necessity obliged them to gratify. But such is my opinion of the integrity, and such my reliance on the honour of Congress, as to believe that when they are furnished with the materials for judging properly, they will be as ready to do me justice, as a part of them have been to listen to the malice and misrepresentations of my adversaries, and to show their magnanimity, by allowing that they have been capable of an error by their readiness to redress it. I have endeavoured to discharge my duty in what I undertook from principle, according to my degree of knowledge and capacity, with fidelity and diligence; and what I value more than knowledge or capacity alone, with humanity; from whence results the approbation of a good conscience which as my enemies, with all their power cannot give, so neither can they take away."

The physicians on the staff of the General Hospital, who were a distinctly superior class of men, joined in writing a sort of memorial for Doctor Morgan, in which they set forth how much he had accomplished during his term of office, and how unselfish he had been in his labors.

It was two years after his dismissal before he finally got a chance to vindicate his conduct. Congress then appointed a committee consisting of Mr. Drayton, of South Carolina, Mr. Harvey, of North Carolina, and Mr. Witherspoon, of New Jersey, to investigate Doctor Morgan's management of medical affairs.

⁵ Early History of Medicine in Phila.

(TO BE CONTINUED.)

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.

Protonuclein in General Practice.*

By G. W. SHERMAN, M. D., Detroit, Michigan.

[From The Physician and Surgeon.]

THE science of bacteriology teaches that pathogenic bacteria produce poisonous substances, ptomains and toxins, as a result of their multiplication and growth, and that these poisons usually cause the illness and perhaps the death of our patient. It has also been demonstrated that most disease germs can inhabit the body of a susceptible animal for but a comparatively short time, causing either death or the establishment of an immunity which results in the eradication of the germ. The immunity thus established will continue through life in many diseases while in others it will disappear by the lapse of time. What the exact nature of this immunizing process is, has not as yet been definitely established, but the antitoxin theory seems to be the most feasible one.

The manufacturers of protonuclein try to explain the efficiency of this preparation on the nuclein and leucocyte theory, but, if immunity is established by the production of nuclein and a resulting leucocytosis, then it is difficult to understand why it is that immediately after immunity against one variety of germ has been established, another variety may invade the body and cause disease. It is a matter of common experience to find a child taken sick with measles after a recovery from scarlet fever, or to have the streptococcus or staphylococcus invade a patient who has fairly established an immunity against scarlet fever, diphtheria or some other infectious disease, causing inflammations and abscesses which are often as serious as the original disease. It appears to me that if leucocytes are instrumental in establishing an immunity against the germs which caused the first disease in these cases, they would be equally as potent in preventing a second invasion. It appears that the germs or their toxins play an important part in the production of these immunizing substances. Anyone who has given diphtheria antitoxin a fair trial in the treatment of diphtheria, can readily appreciate the plausibility of the antitoxin theory of immunity.

What the composition or nature of these immunizing substances is, and how or by what organs of the body they are produced, is still a matter of conjecture, but it is not unreasonable to suppose that the lymphatic, thymus, thyroid, splenic and similar glands have much to do with their production. If these glands have anything to do with establishing immunity against pathogenic bacteria, then it is just as reasonable to suppose that extracts from these glands will assist in curing disease, as that pepsin derived from the peptic glands will assist in digestion; and it is for the purpose of directing attention to this line of therapeutics that I wish to give my experience with protonuclein.

According to descriptive literature pertaining to protonuclein this preparation is obtained by a process of simple extraction from the thyroid and

*Read before the Detroit Medical and Library Association.

thymus glands, the pineal gland and pituitary body, bone marrow, pancreas, spleen, liver, salivary glands, Brunner's glands, Lieberkuhn's follicles, peptic glands, and lymphatic structures derived from young animals. That the preparation is not a single compound, nuclein or protonuclein as its name implies, but a mixture of substances derived from the various structures from which it is obtained, is shown by the fact that it will digest albumens and starch; which the extracts from the peptic, salivary and pancreatic glands will account for. That thyroid extracts have a therapeutic value is quite well established, and that this preparation contains such extracts is apparent. If the extracts, derived from the other structures from which this preparation is made, have effects as varied as those obtained from peptic, salivary, pancreatic and thyroid extracts, it is apparent that in protonuclein we have decidedly a "shotgun" dose, and my experience with it has been that the shots which miss the mark inflict no injury. If gland extracts assist in establishing an immunity when given to persons afflicted with infectious-disease, the fact will bear demonstration by practical experience at the bedside, and thinking that my experience with protonuclein may tend to promote clinical study, I will report a few cases, supplemented by some general statements, for your consideration.

My first practical experience with protonuclein was on myself. About two and a half years ago I was taken with a severe attack of acute catarrhal inflammation of the nasal mucous membrane which rapidly extended down the trachea into the bronchi. It began on a Friday morning with an almost incessant sneezing accompanied by blocking of the nose, fullness in the head and headache, followed later in the day by a thin, copious discharge from the nose, and an irritating cough. By 5 o'clock P. M. the same day my headache was severe, my limbs all ached, and on taking my temperature it registered 101°. I had had similar attacks before, none apparently quite so severe, which always run a course of from one to three weeks. I had tried quinine and other remedies without any appreciable benefit, and was a willing subject to try something new. I had a few samples of protonuclein and began to take them *ad libitum*, starting about 5 o'clock in the evening. By Saturday morning I felt some better and continued taking the preparation through all that day, still *ad libitum*, and by evening, twenty-four hours after I began its use, felt considerably improved. I continued taking more during Sunday, when my nose cleared up, and the headache, fever, cough, and soreness in my limbs disappeared. By Monday evening, after three days' treatment, I was practically well and attended a meeting of the Detroit Medical and Library Association. Since then I have always prescribed protonuclein in these acute catarrhal affections with the same happy result. Experience has taught me that the proper dose for such cases, in the adult, is from six to twelve grains repeated every two or three hours. The treatment should be continued with smaller doses for a few days after the disease has disappeared to prevent a relapse.

I have found protonuclein especially useful in the treatment of broncho-pneumonia in infants and children. In these cases I usually give from two to four grains, according to age, repeated every two to three hours, and find that a recovery takes place in from three to five days. I have had remarkable success in treating pneumonia with this preparation and will briefly report two cases.

Case I.—My mother, aged seventy-two years, on April 8, 1897, suffered a severe chill about 9 o'clock in the evening. Two hours later when I first saw her she complained of pain in the right side; was coughing up bloody mucus, and was very uneasy. Her heart had been irregular for some years but now the pulse was 130 and her temperature 102° . Physical examination revealed pneumonia of the right lung. I prescribed two grains of phenacetin and six grains of protonuclein to be repeated every two hours. By 10 o'clock the next day her temperature was 99.35° and her pulse 108; the pain in her side was less and she felt much better. By the third day her temperature was normal and she felt so well that in spite of my protests, she was determined to sit up. She coughed up rust-colored sputum for six or seven days but otherwise felt quite well. She has had no trouble with her lungs since.

Case II.—J. R., a female aged twenty years, had a chill at 6 o'clock in the morning, followed by fever and pain in the left side. I saw patient first at 8 o'clock P. M. next day, when her temperature was 102° , pulse 115, respiration short, with pain in the left side, and dullness on percussion over lower half of left lung. I prescribed six grains of protonuclein and two grains of phenacetin, and ordered the dose to be repeated every two hours. Next day at 4 o'clock P. M. her temperature was 101° , pulse 108, and she felt and looked better, but coughed up bloody mucus. The third day at 4 o'clock P. M. her temperature was 104° , pulse 120, and she felt worse, having more pain in her side, coughing up much bloody mucus, and feeling restless. On inquiry I found that she had only received her medicine every four hours instead of every two hours as I had directed. I now prescribed nine grains of protonuclein and two grains of phenacetin and ordered that the dose be repeated every two hours. The fourth day at 3 o'clock P. M. her temperature was 99.45° , pulse 96, and she felt better, coughed less and had but little pain. The protonuclein and phenacetin were continued. The fifth day at 4 o'clock P. M. her temperature was 98° , pulse 83, but little bloody mucus being expectorated, lungs clearing up, and she feels like leaving the bed. The protonuclein was continued and phenacetin discontinued. The sixth day her temperature and pulse were normal, appetite good, and patient convalescent. I prescribed nine grains of protonuclein, the dose to be repeated four times a day for a few days, after which no further medication was required.

I have treated ten cases of typhoid fever with protonuclein, all of which made an unusually early recovery considering the severity of the early symptoms of some cases. I will briefly report a few cases:

Case I.—E. H., a female, aged twenty-two years, had been sick one day. When I first saw patient her temperature was 105° and her pulse was 120. She was restless, talked in her sleep, tongue dry, skin dry, face flushed. An examination of her lungs revealed no indications of pneumonia. Diagnosis doubtful. I prescribed three grains each of protonuclein and phenacetin, to be repeated every two hours. The next day the temperature was reduced to $103\frac{1}{2}^{\circ}$, pulse 115, but patient still restless, skin somewhat moist, tongue dry. On the third day her temperature was 104° , pulse 118, and she felt worse. The phenacetin and protonuclein were increased to four grains each, the dose repeated every two hours. On the fourth day her temperature was $103\ 2\text{--}5^{\circ}$, pulse 121, but she felt no better. The capillary circulation was not good. The phenacetin was discontinued and protonuclein, six grains and quinine two grains, repeated every three hours, were given. On the fifth day her temperature was 105° , pulse 123; bowels moved three times; other conditions not improved. Diagnosis, typhoid fever. The quinine was discontinued and the protonuclein continued, six grains every three hours. Cold packs were ordered every four hours when the temperature exceeded 102° . The cold packs were not used as often as directed, but were applied three or four times a day. The temperature came down gradually and the pulse improved until the thirteenth day when the cold packs were discontinued, the temperature no longer rising above 102. From the sixth to the twelfth day there was considerable diarrhea, the bowels moving from three to seven times in twenty-four hours. For this condition turpentine emulsion and bismuth were given. On the morning of the sixteenth day the temperature was normal, pulse 91; the diarrhea had ceased, she looked bright and felt good. After this the temperature varied from the normal to 101° until the twenty-third day when it suddenly run up to 104° . The cold pack was applied but once; her temperature came down rapidly and the patient made a rapid recovery, being able to sit up before the end of the fourth week. The appetite returned about the eighteenth day and was good henceforth except when she had the high fever on the twenty-third day. She lost her hair, as typhoid patients usually do, after convalescence. This case started with unusual severity and promised to be a dangerous or prolonged one. He unusual early recovery, in my opinion, can be attributed to nothing but the protonuclein which was continued until convalescence was completely established.

Protonuclein has a wonderful effect in maintaining the spirits and vitality of a patient during fever and has no depressing effect, while it reduces the temperature. This is particularly noticeable in typhoid cases. They do not lapse into that stupid condition which is so characteristic of this disease.

When protonuclein is taken in large doses, say ten to fifteen grains repeated every two or three hours, it produces a deafness and ringing in the ears very similar to that produced by large doses of quinine. In such doses it may also cause an unsteadiness of the nerves and an increased frequency

of the heart's action. If this condition is observed during the treatment of a disease it is well to withhold a few doses, when these symptoms will readily disappear without leaving any bad effects.

I have given protonuclein in scarlet fever with the effect of having the temperature decline and the swelling of the glands of the neck disappear, while the rash is coming out. I have given it with great success in puerperal fever, erysipelas, infected wounds, and in fact, consider it a valuable remedy in all infectious diseases.

Protonuclein also has quite marked tonic effects which are particularly noticeable when given in cases of general debility resulting from advanced age. As a tonic it should be given in from six to nine grain doses after meals and at bedtime. In neurasthenic cases it is of benefit, restoring a normal tone to the nervous system. I have given it in a few cases of whooping-cough with benefit. I have given it to a few tubercular cases but cannot say that it was followed by especial improvement. In cases wherein the temperature is high I usually prescribe small doses of phenacetin as a palliative remedy to assist in bringing down the temperature until the protonuclein has time to produce results. I consider protonuclein a very valuable addition to our remedies in combating disease, and feel that all who use it in large doses will be gratified with its results.

Speedy Dilatation of the Rigid Os.—Dr. J. Farrar, in a recent paper read before the British Medical Association, (*Brit. Med. Jour.*) calls attention to the value of cocaine, applied locally, for dilating the rigid os. He recites five cases, in all of which the method was successful. In the first case it was not applied with the idea of obtaining this result, but as a local anesthetic for incision of the cervix in a deaf-mute primipara, who had been in labor for 48 hours. The os was thin and rigid, "feeling almost like a circle of sheet tin" and dilated only to the size of a shilling. It had resisted all internal medicines and efforts to dilate with the fingers and mechanical dilators. A ten per cent. solution of cocaine was applied to the os, internally and externally, and the rag left in the os four minutes. Thinking the anesthesia sufficient by this time for the operation of incising, the scissors were introduced, but not used as the os was found to be widely dilated and as flexible and distensible as a rubber bag. The second time it was applied with the intention of producing relaxation in a primipara, aged forty years, and in four minutes the os was so distensible that he could easily slip it over the child's head and proceed with the delivery. The other cases were equally successful.

Diagnosis of Perforation of Bladder.—A perforation of the peritoneal wall of the bladder may be ascertained by drawing off the urine and then injecting a measured quantity of aseptic fluid into the empty bladder. If the bladder readily distends, and if in a short time as much of the fluid is withdrawn as was put into the bladder, the inference is strong that there is no perforation of the bladder. This evidence, of course, does not preclude a possible lesion of the ureter or pelvis of the kidney.—*H. M. Taylor.*

North Carolina Medical Journal.

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Editorial.

THE CARE OF THE SICK AND WOUNDED IN THE WAR OF THE REVOLUTION.

IN this issue of the JOURNAL appears the first installment of a paper entitled "The Care of the Sick and Wounded during the War of the Revolution," by Dr. Packard of the Philadelphia Polyclinic. The subject is of unusual interest just now as we are having troubles of our own relative to a similar matter. It will be seen from this account of the medical history of the War for Independence, that the Surgeon Generals of the Continental army suffered much of the criticism and labored under many of the difficulties that beset our present Surgeon General in the last war, and this leads us to the conclusion that the position of chief medical officer in the United States Army during war times is not one of flowery easy. It is true that our ancestors did not have to contend with a diet of "embalmed beef" but they suffered from a similar lack of medical supplies as did our soldiers in the Spanish War, with this important distinction, that with them the supplies did not exist, while in our case there was a great abundance of all necessary articles but the distribution was defective.

Our troubles however, pale into insignificance when we contrast the plight of the sick or wounded soldier in the days of the Revolution. Think of the position of a regimental surgeon who could not raise enough instruments to fill a pocket-case.

A NEW REMEDY FOR RHEUMATISM.

There is perhaps no more convincing proof of the inexhaustible gullibility of mankind than is furnished by a thoughtful consideration of the various medical fads that have at various periods spread over the civilized world. No community however intelligent is capable of standing the subtle, but irrational claims of some new means for the cure of disease.

We know something of the peculiar doctrines of scientific christianity and have now and then heard of the Osteopaths: even the reverend gentleman, who, arguing from the premise that man was originally composed of dust, insists that all his ailments must be amenable to the external application of the same in the form of mud, has not escaped our attention, but we must confess that the "Electric Switch Glass Caster" for Rheumatism, Neuralgia, &c., has hitherto been overlooked. This latest boon to suffering humanity shows a record of 90 per cent. of cures, a result which need not stagger our credulity when we recall the perhaps forgotten fact that these diseases are due to a "too great flow of electricity from the body to the earth." This important fact once grasped, anybody might have thought of employing glass as an insulating agent.

In this connection our able contemporary the *Philadelphia Medical Journal* very pertinently remarks: "Of what a great mistake Jehovah was guilty in making the world, or at least the human feet! The earth should have been covered with glass, or the babies, likewise Cinderella, should all have been supplied with glass slippers. Then it would not have been necessary for all of us to go skating about with glass casters!"

Necrology.

DEATH OF RUFUS W. PEACOCK, M. D.—Dr. Rufus W. Peacock, of Jersey City, N. J., died on February 6th, at the age of seventy-two. He was born at Goldsboro, N. C., and practiced in the South for a number of years. In 1875 he took a post-graduate course at the Medical Department of the University of the City of New York, and since then had resided in Jersey City.

Dr. George H. Rohé, of Baltimore, died suddenly in New Orleans on February 9th. He was prominent as an alienist and sanitarian and was the author of a popular work on hygiene.

Dr. E. P. Hurd, died at Newburyport, Mass., February 24th of pneumonia, the result of exposure on a snow-bound train during the recent great snow storm. Dr. Hurd was about sixty years of age and a man of high literary attainment. He was an occasional contributor to the JOURNAL and his writings were always interesting and instructive.

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the NORTH CAROLINA MEDICAL JOURNAL, drop them a card in our favor.

News and Items.

An Attack of Rheumatism is said to be ushered in by sore throat in 75 per cent. of the cases.

The Roentgen Rays have been used successfully in Paris as a scientific test for death. The slightest movement of the heart is said to blur the photograph.

Journal of the American Medical Association, Dr. George H. Simmons has been elected editor of the *Journal of the American Medical Association*. Dr. Simmons was formerly editor of the *Western Medical Review*.

In a certain tribe of Africans, living near Lake Nyassa, a popular method of committing suicide is for a native to wade out into the water and wait until seized by a crocodile. This is probably one of the surest means of attaining the desired end with a minimum of effort.

An alleged discovery of the bacillus of vaccinia, by Mr. Stanley Kent, of St. Thomas Hospital, is recorded in a London newspaper. Mr. Kent claims that it will revolutionize vaccination, as pure cultures of the vaccinia germ can henceforth be used for inoculation in the same way as pure cultures of diphtheria and tetanus are now available for preparing antitoxic serum.—*Med. Times*.

The Board of Medical Examiners of the State of North Carolina will meet in Asheville, N. C., on Thursday, May 25th, 1899. Applicants are urged to be promptly on hand at this time to register and prepare for examination on the following day.

THOS. E. ANDERSON, M. D.,

Sec'y Board, Statesville, N. C.

Premature Baldness, is said by Dr. J. M. Blaine in the *Jour. Am. Med. Ass.*, to be due in a very large proportion of cases, to the result of shaving, thus stimulating the growth of the beard at the expense of the hair. He claims that the habit of allowing the beard to grow from the age of 25 to 35 years of age would result in making alopecia prematura a rarity.

Old M. D.—“Are you having much practice?”

Young M. D.—“Yes; quite a good deal, thank you.”

Old M. D.—“Ah! I'm glad to hear it. Are you making a specialty of any particular thing?”

Young M. D.—“Yes, indeed. About nine-tenths of my time is devoted to the practice of economy.”

Riches and Medicine.—It is said Sir William Jenner, the best known of the Queen's physicians, who died recently in England, made a larger income than any other consulting physician in England. His revenue from his practice averaged \$75,000 annually. His largest fees were two of 5000 guineas each, both from American patients. One was for going to Scotland, and the other was in payment for attendance on a patient in Brighton, only an hour from London.—*Medical Age*.

The Plague.—Late telegraphic advices from Bombay report 1,500 deaths from the plague during the week ending Feb. 4th.

A Good Location.—There is a city of 60,000 inhabitants in Syria, not far from Latakia, in which there is not a single physician. The name of this fortunate or unfortunate place is Hamah. As is the case with most of the towns in that country, diseases of the eye are exceedingly common, and an oculist who is willing to rough it, and to suffer many discomforts could doubtless gather in numerous shekels.—*Med. Age.*

Medical Fees.—The Esquimau gives the doctor his fee as soon as he comes. If the patient recovers he keeps it; otherwise he returns it to the family. In Mexico the doctor gets his fee before the patient is buried; otherwise the deceased is believed to dwell in purgatory until the fee is paid.—*Ex.*

Dr. George H. Simmons, of Lincoln, Neb., and formerly editor of the *Western Medical Review*, has been unanimously elected editor of the *Journal of the American Medical Association* to succeed the late Dr. John B. Hamilton.

Power of Recuperation as well as preparation at all times for emergencies are well shown by Messrs. Wm. R. Warner & Co., who recently suffered serious loss in Philadelphia by fire. The firm is *now* filling orders from their laboratory at Broad and Wallace streets, that city, with but little delay.

Infant Feeling.—A famous author, in spite of the physiological fact known these thirty years, that there is saliva and pancreatic juice in the infant economy, has only lately been converted to a faith in farinaceous foods, and is experimenting with other than milk-sugar, and he comes to the conclusion, based on I do not know how many sleepless nights, that the feeding on woman's milk may be carried on too long. Many begin also to find out that cow's milk may be done to death by inconsiderate cooking, and that the latter is not rendered more sacred or more wholesome by calling it sterilization.—*A. Jacobi, Phila. Med. Journal.*

Woman Leadership.—It is significant that in the consolidated statistics showing the success with which the candidates have passed the tests of the state medical boards both for the last year, and for the period of six years, the women's colleges should stand at the head, though they are less fully equipped, and have much smaller faculties. The papers are marked without any knowledge of the sex of the candidate, and it is beyond question that the women have won their proud position of leadership on their merits. This is due, as nearly as we can determine, largely to the fact that a young woman is usually willing to take a fuller preparation for her professional study, and is not so eager to get into practice that she will cripple the quality of her work by insufficient general education.—*Bulletin Am. Acad. Medicine.*

A Postoffice Physician.—The Chicago postoffice is to employ a physician permanently at a salary of \$1,700 a year, who will be stationed at the main office to examine employees who report themselves sick and unable to attend to their duties. It is expected that he will work a saving greater than the amount of his salary.

Difficulties of Consultation Practice.—The following clipping from the *Philadelphia Medical Journal* is offered our readers on the principle that “a little nonsense now and then” is relished even by the doctor:

To the Editor of the Philadelphia Medical Journal:—

The letter you publish from Dr.——, on page 1263, December 17th, tempts me to send you accurate copies of two bona-fide letters, received by me some months ago. I omit the signatures (as well as my own, to this communication) for obvious reasons. The two practitioners who sent these letters are not members of any county society, nor is any college in Pennsylvania responsible for them. They both, however, “hang their banners” on the outer wall.

No. 1.

“Dok———

fer gawds sake com over and see a woman in turrable Shap i think her will go up it luks to me like her had bust her rectum or off that kind. her is at My house bot see hear dok i am not a rigler like you but if you com bedam if i wont lev the hous an staout til your gon fer the womans sak come rite off

yours

———, M.D.”

The writer went. The non-“rigler,” true to his word, went out and stayed out. It was a case of simple rectal prolapse.

No. 2.

“Dok———esq M.D.

Dere Sur

Will you pleas an be so kind and sen me a buk on Womans Diseas. if you hav to of them sen the ole Skule Buk they is the best fer me. I have a curos kase. women of corse. she ar broke out in Bunches on the posterer legs I think it mus be Sifis sen by nex trane and I will sen back in a weak with my komplementds.

yours freeternl

———, M.D.”

The “old Skule Buk” was not sent on the “nex trane,”

Yours,

A clergyman was very anxious to introduce some new hymn books into the church, and arranged with the clerk that the latter was to give out the notice after the sermon. The clerk, however, had a notice of his own to give out, with reference to the baptism of infants. Accordingly, at the close of the sermon, he arose and announced that, “All those who have children whom they wish to have baptized please send their names at once to the clerk.” The clergyman, who was deaf, assumed that the clerk was giving out the hymn book notice, and immediately arose and said, “And I would say for the benefit of those who haven’t any, that they may be obtained at the vestry any day from 3 to 4 o’clock, the ordinary little ones at one shilling each and special ones, with red backs, at one shilling and four pence.”—*Western Medical Review*.

Book Reviews.

Glaucoma ; Its Symptoms, Varieties, Pathology and Treatment.—By Alex W. Stirling, M. D., C. M. (Edin.) D. P. H. (Lond.), Atlanta, Ga. Member of the Ophthalmological Society of Great Britain, late House Surgeon Royal Westminster Ophthalmic Hospital, London; Instructor in Ophthalmology, and Ophthalmic Surgeon, Post-Graduate Medical School and Hospital, New York; Assistant, Manhattan Eye, Ear and Throat Hospital, New York, etc. Pages 177; Jones H. Parker, St. Louis.

The contents of this little book have already appeared serially in the *Annals of Ophthalmology* and are largely a compilation of the views of others, with comments by the author, arranged in concise and convenient form and intended for students and the general practitioner.

The author first takes up the symptoms, giving a good description of them. The many theories advanced in explanation of the etiology of glaucoma are given in six chapters.

In discussing mydriatics, he says: "It may with safety be said that without exception all mydriatics are to be avoided in an eye predisposed to glaucoma, and that their action should be watched in every case, and more especially after middle life." With which sentiments the reviewer thoroughly agrees.

One chapter is devoted to diagnosis and prognosis, and two to treatment. On the whole the subject is clearly treated and the volume supplies any existing need. The practitioner who will read the little volume of 175 pages once and chapter 12 twice, will not be like to mistake glaucoma for iritis, rheumatism or neuralgia and use atropin to the destruction of vision.

Ocular Therapeutics for Physicians and Students.—By F. W. Max Ohlemann, M. D., Minden, Germany, translated and edited by Chas. A. Oliver, A. M., M. D., C. P. Blackiston's Son & Co., Philadelphia, 1899 Cloth \$1.75; pages 275.

The editor in his preface says: "The belief that an association of the best work of the Continental writers on ocular therapeutics might be brought together into a combined form, and that such an association would prove of value not only to the ophthalmologist, but to the profession at large and the knowledge that in the work of the present author an authoritative and valuable exposition of the subject as now known abroad has been given, have been the inducements to present the accompanying authorized translation to the American reader." After a careful reading of the volume we congratulate the profession on having placed in its hands a volume so convenient and valuable. The various diseased conditions of the eye and appendages are taken up *seriatim* and without entering into pathology or general symptomatology, the cream of continental ocular therapeutics is placed before the reader, the method of application being illustrated by the text. The busy family doctor has too little time at his command to allow him to wade patiently through page after page for suggestions in ocular therapy. In this volume he finds condensed into a few pages, under appropriate headings, the principal indications for treatment and the various agents in R form, that have furnished the best results in the hands of the leading ophthalmologists in Europe. No attempt is made to advocate any particular theory or routine; all well tried plans of treatment are given; there are 225 prescriptions, all told, and no official ophthalmic drug, so far as we can see, but is inclined in one or more of them. Ocular therapeutics is rather a difficult subject to master, but there is no text-book in which the treatment of eye diseases is more clearly set forth than in this translation by Oliver.

Manual of Diseases of the Skin, With the Analysis of Twenty Thousand Consecutive Cases, and a Formulary.—By L. Duncan Bulkley, Physician to the New York Skin and Cancer Hospital, etc. Fourth edition. Revised and enlarged. 362 pp. New York; G. P. Putnam & Sons. 1898.

This little volume, as the author says in his preface, does not pretend to be a complete and comprehensive exposition of dermatology, but for the general practitioner who desires to freshen his, perhaps dim and indistinct knowledge of diseases of the skin, or for the use of the student, it fulfills a most admirable purpose. In fact it would seem impossible to compress so much practical and valuable information upon this subject in so small a space. Dermatology is usually looked upon by those doing general practice as a kind of bugbear and chronic cases of skin affection are promptly referred to the specialists or given up in despair. Yet Dr. Bulkley claims that an accurate knowledge of this subject is worth more to the doctor engaged in general practice than the mastery of any other specialty.

A considerable portion of the book is devoted to treatment and diagnosis, two matters of very great importance to the busy practitioner. The author has also added a number of formulas which will be found quite useful. A unique and very convenient feature of the work is a diagnostic index. We can cheerfully recommend this book to anyone desiring a manual on skin diseases.

Merck's Manual of the Materia Medica.—Together with a summary of Therapeutic Indications and a classification of medicaments, compiled from the most recent authoritative sources and published by Merck & Co., New York. Price \$1.50.

Merck's Manual contains a great deal of useful information for the Doctor, that it would be quite troublesome to find elsewhere. All that class of new remedies which, while receiving the sanction of high authorities, are not as yet to be found in the works on Materia Medica possessed by the average physician. In addition it contains the formula of those "medicamentous mixtures" advertised only to the profession and which are being largely prescribed. As a quick reference for any one desiring to learn the essential chemical, physiological or therapeutic facts concerning a particular drug, as well as a complete list of the medical agents employed in the modern treatment of the several diseases, the manual will be found highly serviceable.

Three Thousand Questions on Medical Subjects arranged for self examination. Second edition enlarged and revised. P. Blakeston's Son & Co., Philadelphia. 1899. Price, 10c.

These questions cover all the branches of medicine. The answers to the questions do not appear in this volume, but following each question are figures which refer to the volume and page where the answers will be found. Thus we find the following: What is milk-fever? 5-168. By referring to the list of books we see that the answer to this question will be found on the one hundred and sixty-eighth page of *Laudis' Quiz-Compend on Obstetrics*. Alternate pages in the volume are left blank so that other questions may be inserted.

Lessons in Hypnotism and the Use of Suggestions Based Upon the Neuron Motility Hypothesis, by Leslie J. Meacham. Published by The Bishop Publishing Co., Cincinnati. \$1.00.

The popularity of this little volume is shown by the exhaustion of the first edition in nine months. The second edition, issued in Dec. '98, is a reproduction of the first, the continued demand not allowing time for revision.

The author devotes two chapters to "Theory," one to "How to Produce and Test Hypnosis," one to "Therapeutics" and one to "Cautions," concluding with thirty-four two-third page, half tone illustrations, showing position of operator and subject during the induction of the hypnotic state.

The reviewer disclaims any practical knowledge of the subject, but after a careful reading of this little volume concludes that it contains much that is practical and that any physician could profit by its reading.'

The Medical News Pocket Formulary for 1899. By E. Quin Thornton, M. D., Professor of Therapeutics, Pharmacy and Materia Medica in the Jefferson Medical College, Philadelphia. Lea Brothers Co., Philadelphia, 1899.

That there is a tendency on the part of some doctors to use these ready made formulas when the diagnosis allows it, is acknowledged by the author when he says in his preface that "in preparing this little volume there has been no intention that it should replace individual thought on the part of the practitioner," but we agree with him in thinking that the physician need not fall into that habit for availing himself of these suggestions, founded upon the clinical experience of leading men in the profession. The volume contains beside formula for the various diseases, these being arranged alphabetically, useful items of information such as comparative tables of weights and measures, incompatibles, doses, etc. The volume is gotten up in good style, but is rather too bulky to be carried in the pocket constantly.

Eczema of Children : Dr. Thomas S. Southworth says that it has seemed to him that the reason the eczemas of childhood have been the reproach of the general practitioner is that the opinion seems to prevail that the physician had done his whole duty when he had written a prescription. On the contrary, the eczema should not be treated locally, but the diet should be regulated and a regular action of the bowels secured. It was exceedingly important to prevent further irritation by confining the hands. It seemed to him better not to apply water to the eczematous areas, but to clean them with olive oil. In the large majority of cases the diet should consist largely of milk, and certainly the starchy foods, and especially potatoes, should be reduced. He heartily agreed with Dr. Chapin regarding the usefulness of the fluid malt preparations. After attention to the diet and constipation, the local treatment was usually simple, the important points being to avoid the use of irritating ointments. Probably the best ointment for the average case of infantile eczema was the ordinary zinc oxide ointment. When the skin was thickened and scaly, it might be desirable to add one-fourth of tar. For the eczemas about the ear, he knew of nothing better than a 2 per cent. ointment of ammoniated mercury.—*Pediatrics*.

Enterprise.—A London undertaker whose business needed boosting, had the following sign posted in his window: "Why walk about the earth in misery, when you can be buried for 30s?"

If you see anything in this journal that you differ from, write us about it; if you see what exactly agrees with your views and experience, write about that also. Give us the benefit of your views. Send us reports of interesting cases

Review of Medical and Surgical Progress.

The Prevention of Gonorrhea.—In the *Georgia Journal of Medicine and Surgery* there is quoted from the *American Journal of Dermatology and Genito-Urinary Diseases* an article by Dr. G. J. Monroe on the prevention of gonorrhea in the male, in which he gives a patient, whom he characterizes as a "high roller," a prescription to be used after every connection to prevent gonorrhea. Immediately after intercourse he orders the patient to urinate and then wash the penis and scrotum with tar soap, which he is to carry with him. Then he is to inject with a glass syringe a solution of the permanganate of potash, one drachm to seven of water. This is to be passed out at once, and a second injection is held in the urethra for about a minute; then the penis and scrotum are to be washed with this solution, which is not wiped off, but allowed to dry on the skin.

By following this direction the patient has never had a second attack of gonorrhea but once, when he broke his bottle of valuable solution. He has had intercourse for the sake of science with women who are known to have gonorrhea, and has escaped by the careful use of the treatment suggested. There may come a time when the man-about-town will carry his soap, bottle, syringe and cotton with him always, and the genito-urinary surgeon will have no more cases of gonorrhea to treat.

Dr. F. Schopf, in *Wiener Klinische Wochenschrift*, on the treatment of aneurism, says: Modern operative technic has so lessened the dangers of operations that the question to-day is, which method of treatment will give the most extensive collateral circulation, and the least chance of partial or total gangrene? Therefore there need be no hesitation, because of the danger of sepsis and secondary hemorrhage, to operate when operation seems to be indicated. Schopf offers the following conclusions as fundamental rules to be observed in the treatment of ilio-femoral aneurism: Whenever possible, compression should be given a trial before resort to more severe measures. By this method it is possible in many instances to effect a cure, and if failure takes place the collateral circulation has been in part established. If compression fails, operative procedures are then indicated, and when feasible, total extirpation of the sac should be chosen as the surest. These rules are especially applicable to ilio-femoral aneurisms, but they are equally so to aneurisms of other portions of the body, if they are so situated as to allow of operative treatment. During recent years total extirpation has been more frequently practised than earlier.—*Phila. Med. Jour.*

Fallacious Tests for Albumen in the Urine.—Under this head Dr. Ogden C. Ludlow (*Medical Record*) discusses at some length the unreliability of the alcohol test for albumen. He claims that this test is a rough-and-ready method and leads to superficial examination and faulty diagnosis. In support of this he gives the following result of experiments made to determine the relative value of the alcohol test:

"The examinations were made, for the most part, on supposedly healthy individuals, many of them candidates for life insurance. The result of the alcohol test was noted in 150 examinations, made on 95 different persons, and one or more of the well-known tests for albumen were generally used for purposes of control. The findings may be briefly summarized as follows: Reaction "very marked" (*i.e.*, a decided cloud with only one drop of urine) in 28 cases; reaction marked (*i.e.*, a decided coagulation with one or two drops of urine, but less copious than in the first group) in 48 cases; reaction "slight" (*i.e.*, where a faint cloud is produced by the addition of from one to three drops of urine) in 25 cases; reaction "barely perceptible" (*i.e.*, reaction only visible on close scrutiny and under careful illumination) in 18 cases; and "negative" (or no reaction) in 31 cases. This means that alcohol indicated the presence of albumen by a well-marked reaction in 76 of the 150 cases, or 50.6 per cent.; that the test responded feebly, but unequivocally, in 43, or 28.7 per cent.; and that there was no reaction in 31, or 20.7 per cent. of the whole number. It is a significant fact, in connection with the question of the practical value of the alcohol test, that in 83 cases, or over 50 per cent., this test gave the reaction for albumen, yet the control yielded a negative result. In the remainder of the examinations the urine was either albuminous, or the result with the alcohol was also negative."

The writer regards the nitric acid and the heat test as being far more liable, and the best for all practical purposes.

Typhoid Fever.—Dr. Osler, of Baltimore, in an address on this subject before the New York State Medical Society laid great emphasis on the fact that for very many years the medical profession had been fully alive to the true nature of typhoid fever. One fact stood out with special prominence—*i.e.*, that with clean soil and pure water typhoid fever disappeared. While many advances had been made in the treatment of this disease, they had been nothing compared to the triumphs of sanitary science. The medical profession could point to typhoid fever as the best understood and the most carefully studied of the acute infectious diseases—the one in which the greatest victories in hygiene had been won. But in spite of these triumphs, we had had a rude awakening last fall in the many soldiers who fell victims to this dread disease. Ours was a nation, Dr. Osler said, of contradictions and paradoxes—a clean people, careful in personal hygiene but reckless regarding public sanitation. Dr. Smart, the great authority on hygiene, recently made the statement that the cities of this country, as regards the matter of water-supply, were at least a century behind the cities of Europe. In organized sanitation Michigan was one of the model States. The problem of typhoid fever, Dr. Osler declared, was no longer in the hands of the profession; even the lesson of the late war had probably not been bitter enough to teach the public that sanitary science should come within the sphere of practical politics. Our good-natured citizens, who always voted a straight party ticket, were not deeply interested in the problems of sanitary science; they were more easily led by a Perkins or a Munyon than by a Lister or a Koch. Our glorious land has been recently described as "God's own country, with man's own backyard, and the devil's own cesspool."

Bronchitis.—A full dose of Dover's powder will frequently abort an attack.—*Charbonneau*.

Opium should be freely used in the form of Dover's powder. No remedy can take its place.—*Osler*.

The following therapeutic results are from the use of opium in full doses: Reduction of irritability, congestion, or inflammatory activity. Alteration in the character and limitation of the amount of the secretion. Increase in the general comfort by relief of pain and soreness, and removal of cough and incidental insomnia. Speedy and permanent cure of eighty per cent. of the cases.—*W. T. English*.

Infected by Absorption.—An eye quack, who advertises to cure all diseases of the eyes by the simple process of "absorption," recently admitted to his house a patient with gonorrhœal ophthalmia; and, as it is a poor rule that does not work both ways, and since absorption at that time was working freely, many of the other inmates caught the disease. Each sufferer was assured there was nothing the matter, and that it was all in his eye. The true nature of the disease was finally discovered in time to save the sight of the victims, and now the latter are suing the quack in the hope of absorbing some of his dollars as a sort of salve for their sore feelings and sore eyes.

A Conclusive Proof of the Efficacy of Vaccination.—Conclusive to those who have not lost both their logical and their common sense—is furnished by the experience of the Germans, and especially of the German army. A philanthropist could make no better use of his money than to gather these results into a pamphlet and distribute it repeatedly to every faddist of the "Humane," the Antivaccination, and the Antivivisection Societies. He should also secure its insertion as an advertisement in *Life*, and in the other anti-science journals. Dr. Bizzozzero, of Rome, according to the *Lancet*, thus summarizes the German experience:

"Germany stands alone in fulfilling in great measure the demands of hygiene, having in consequence of the calamitous small-pox epidemic of 1870-71 enacted the law of 1874 which 'makes vaccination obligatory in the first year of life and revaccination also obligatory at the tenth year.' What was the result? With a population of 50,000,000, having in 1871 lost 143,000 lives by small-pox, she found by her law of 1874 the mortality diminished so rapidly that to-day the disease numbers only 116 victims a year. These cases, moreover, occur almost exclusively in towns on her frontier. If it were true, continued Prof. Bizzozzero, that a good vaccination does not protect from small-pox we ought to find in small-pox epidemics that the disease diffuses itself in the well-vaccinated no less than in the non-vaccinated countries. But it is not so. In 1870-71, during the Franco-German war, the two peoples interpenetrated each other, the German having its civil population vaccinated optionally, but its army completely revaccinated, while the French (population and army alike) were vaccinated perfunctorily. Both were attacked by small-pox; but the French army numbered 23,000 deaths by it, while the German army had only 278; and in the same tent, breathing the same air, the French wounded were heavily visited by the disease, while the German wounded, having been revaccinated, had not a single case."

The Toxemic Factor in Diabetes Mellitus.—Dr. G. W. McCaskey presents in *Medicine* (January, 1899) an interesting paper on this subject, based on a clinical study of two cases. The importance of the pancreas as a possible etiologic factor in the production of glycosuria appears to be conclusively proven by the experiments of Mering and Minkowski. This can be true, however, in only a limited proportion of cases, for recent investigations have shown that in possibly one-half the cases nothing whatever can be found wrong with the pancreas macroscopically or microscopically. Experiments on lower animals have demonstrated that it is not the ordinary secretion of the gland that is poured into the intestine that prevents an excessive glycemia by the transformation of the glycogen, but a "something," very possibly a so-called internal secretion, which passes directly into the blood without the intervention of the duct. No other explanation seems possible of the effect of subcutaneous or peritoneal pancreas grafts in preventing the occurrence of a pathologic glycemia after complete extirpation of this organ.

We are ignorant of the manner in which disease or injury of the nerve centres produces glycosuria, whether through stimulation of the glycogenic function of the liver or otherwise. Pathologic anatomy tends to minimize the importance of the liver as a factor in the causation of diabetes, but in view of the frequent occurrence in diabetes of symptoms of hepatic disturbance we should be cautious in thus excluding it. The failure, in certain fatal cases of diabetes to find any pathologic changes, except, perhaps, such as are inconstant and secondary shows how imperfect is our knowledge of the true nature of this disease. In support of the chemic origin of the disease the author alludes to the production of glycosuria by the introduction into the circulation, either by hypodermic injections or by the stomach, of phloridzin, a chemic substance derived from the bark of the trunk and root of apple, pear, plum, and cherry trees. Mering found that by administering to one of his patients one gramme twice daily for a month it caused the excretion of nearly one-fourth of a pound of sugar daily. The glycosuria disappeared the day following the last dose, and the patient was apparently as well as ever.

Admitting that a toxemic diabetes may occur, for phloridzin cannot act otherwise than as a blood poison, the suggestion arises as to the possibility of auto-intoxication as a cause of diabetes. With this suggestion in view the author made a clinical study of the following two cases: Case I. was a merchant, aged 62, who had been under treatment of his family physician for a year on account of diabetes mellitus. The patient had lost about forty pounds in weight during the year in spite of a voracious appetite, the loss during the last month being three pounds. The daily excretion of urine was 4000 cubic centimeters, specific gravity 1039, solids 363 grammes, reaction acid; urea 52 grammes; sugar 276 grammes; chlorides 46 grammes; indican 320 milligrammes. Taking the large quantity of indican as proof of intestinal putrefaction, an examination of the colon revealed large quantities of mucus, with a rich growth of bacteria and protozoa. To ascertain whether a gastro-intestinal auto-intoxication might not be in some measure responsi-

ble for the symptoms, thorough disinfection of stomach and intestines was advised. The former was declined, but the patient entered at once upon a course of colon irrigations, abdominal massage, and hydro-therapeutics, at first daily, and later on alternate days, continuing the treatment about a month. No drugs were given and the diet, which consisted of Graham bread *ad libitum*, meat, fish and apple sauce, was unchanged, except for the addition of a baked potato twice a day. The result was almost immediate; in two days the sugar had fallen to 168 grammes, the fifth day to 142, the eighth to 112. By this time the indican had been reduced one-half. At the end of three weeks the sugar had fallen to 40 grammes. The polyuria remained unchanged, however, and though the patient's symptoms were all improved, and his weight increased three pounds instead of diminishing, he became discouraged and disappeared from view.

The second case was that of a woman, aged 52. She complained of severe parasthesia of both hands and arms, extending to the shoulders, of about fifteen years duration, pains in the neck, and a paroxysmal pain in the coccyx, relieved by pressure. She had suffered for years with sick headaches, lately of increasing frequency. Losing strength and flesh gradually, though appetite was good and had no stomach distress. Had excessive gas formation in both stomach and bowels. The quantity of urine was 1500 cubic centimetres; specific quantity 1030; urea 1.3 per cent.; sugar 140 grammes daily; indican 300 milligrammes, indicating extensive proteid decomposition in colon. Examination of stomach and colon made it evident that there was considerable autointoxication and it was believed this had much to do with the producing of the symptoms. No drugs were given and the diet remained unchanged. She was advised to eat liberally of whatever she pleased. Daily irrigations of stomach and colon, with intragastric faradism, abdominal massage, and general hot and cold douches, was the treatment instituted. Improvement in all the symptoms began immediately. After two weeks of treatment the headaches, troublesome nervous symptoms, and the coccygeal pain had entirely disappeared. In ten days the amount of sugar excreted had fallen to 15 grammes and the amount of urine to 925 c.c. The patient then went home for a week but remained away two weeks. The glycosuria increased during this respite in the treatment, until when she returned she was excreting over 100 grammes of sugar and about 1500 c.c., of urine. The stomach, which had very much improved under the treatment, had returned nearly to its former condition. The same treatment was again instituted and the result was practically the same as the first. The condition rapidly improved until the amount of sugar reached 10 grammes a day. From his experience with these cases, the author thinks the following conclusions warranted:

1. That all cases of persistent glycosuria are cases of diabetes mellitus, of varying grades.
2. That diabetes mellitus is a disease of diverse origin, the unit of the clinical picture being for the most part dependent upon the glycemia and

glycosuria, which are mere incidents, although dominating factors of the disease.

3. ~~That~~ That phloridzin diabetes are not essentially different from clinical diabetes, and that it renders plausible the assumption of a chemic factor; either as a primary or an important secondary cause in the clinical type of the disease.

4. That normal sugar transformation in the blood, the failure of which is responsible for glycemia and glycosuria, is the result of a chemic product in the blood, derived in man principally, if not exclusively from the pancreas, and thrown directly into the blood from the pancreatic cells, without the intervention of the duct.

5. That the direct chemical antagonism of this chemic substance by another is no more improbable than such antagonism of a toxin by an anti-toxin, which Martin has recently established.

6. It is probable on both clinical and experimental grounds that certain chemic poisons, for the most part of gastro-intestinal origin, but possibly also from faulty tissue metabolism, or as a perverted "internal secretion" from glands, not necessarily ductless, either directly or indirectly antagonize, in whole or in part the sugar destroying substance in the blood, thus giving rise to glycemia and glycosuria, and thus either primarily causing or at least exaggerating the clinical phenomena of diabetes mellitus, in a certain group of cases.

7. If further investigations should corroborate the conclusions here provisionally set forth, it would be advisable hereafter to investigate the bacteriology of stomach and intestines in cases of diabetes mellitus, and if evidences of virulent bacterial, or parasitic growth are found, these conditions should be met by suitable treatment, not with the expectation of entirely supplanting dietetic treatment, but as an important auxiliary to the latter, possibly rendering its restrictions less severe, with less resulting impairment of nutrition.

Colloidal Silver as an Antiseptic.—Dr. B. Credè (*Med. Rev.*) in an interesting paper on the prevention of sepsis after laparotomies and uterine operations, claims continued success, with this preparation to which he called attention three years since. He believes that on the basis of a large experience he can recommend a procedure which will effect all that is possible to prevent sepsis, and will mitigate or cure it when present, for operations on the aseptic or infected abdominal cavity, for uterine operative work, and for all large wound cavities. This procedure consists in the imbedding of soluble metallic silver, the *argentum colloïdale*, in the most dangerously situated portions of the cavity and wounds. He uses the drug in the form of pills described by him as "*Pil. Argent. Coll. Minores.*" These contain 0.05 grammes ($\frac{3}{4}$ grains) of *argentum colloïdale*, the same quantity of sugar of milk, and a trace of glycerine.

If thoroughly prepared they are soluble in distilled water, the silver being still in the colloidal condition. It is finely subdivided and mixed with the

milk sugar, and hence the penetration of fluids and the solution of the silver is rendered easy.

In introducing the pills of colloidal silver into the uterine cavity after an operation that is likely to be followed by sepsis or decomposition of the secretions, one to three pills are placed in the middle of a piece of gauze bandage about eight to twelve inches in length, which is then doubled and twisted into a long spiral body. This is caught just below the pills with a pair of long forceps and carried to the fundus of the uterus, being left so that the free end just hangs from the cervix. The cervix is then dusted with silver nitrate and the vagina loosely packed with gauze bandage. The vaginal tampon is removed in from 24 to 48 hours and another applied; the intra uterine gauze is left in situ for at least five days.

The author describes his method of preparing silver catgut which he has used for three years and with which he is still absolutely satisfied. The method is as follows:

The catgut as it comes from the factory in thick coils, but somewhat loosened, is placed in a brown glass, wide-necked bottle; if a white glass receptacle is used it must be covered with black paper. A solution of the lactate of silver, 1 to 100; is then poured in until the catgut is completely covered. Here it remains for one week; then it is taken out; and placed in an ordinary, large glass vessel, covered with glass, and exposed to the brightest, possible light. The lactate of silver in the swollen threads is reduced to metallic silver, and the fibers becomes brownish black. Then the catgut is washed in boiled water until the wash-waters come away clear. It is then placed in a large flat glass vessel, and covered with a double layer of muslin. After it has dried for two or three days it is straightened out with carefully washed hands, cut in 30 cm. (12 inches) lengths, and tied into bundles. It is preserved in a long metal box similar to that used for catheters, wrapped in four folds of muslin. Before use it is best placed for fifteen minutes to an hour in alcohol, in which it remains until it is used up. Catgut so prepared is absolutely sterile, and acts antiseptically so far as the silver that it contains reaches.

The following is his technique in an operation in which six inches of the transverse colon was removed for cancer:

After fastening the Murphy button, and making a Lembert suture over it also because the intestinal edges could not be completely invaginated, I washed both the external and the internal field of operation with a gentle stream of a 1 to 8,000 citrate of silver solution. Then drying with sponges, I dusted the suture line lightly with the citrate, and with a Lister forceps I placed two silver pills in the wound, one 5 to 6 cm. (2 to 2½ inches) above and the other the same distance below the resected intestine, and then closed the abdominal cavity in the usual way. Healing, as in all the sixteen laparotomies which up to the present I have treated in this way, ensued not only with a quite remarkable absence of reaction from the peritoneum, but even without the so-called aseptic fever. This evening rise of tempera-

ture to 38 °C. (100.8°F) formerly occurred for two or three days in a noticeable minority of the cases. I have come to the conclusion that this fever also is usually caused by a mild degree of septic infection, though in some instances other influences, such as a cold, or a gastric catarrh may cause it. I have had no trouble with this prophylactic imbedding of the silver. I have never had argyrosis, or any other symptom which would betray the presence of the silver in the wound.

When there is an infectious peritoneal process, as occurs with infections of the gall bladder and appendix, as also in cases of carcinoma of the peritoneum, the purulent secretion becomes serous in a surprisingly short time under the treatment. In such cases drainage is substituted, or a free outlet for the secretions is inserted by the use of silver gauze or that of the ordinary absorbent kind. This latter method also prevents the dislodgment of the pills. The secretion upon the deeper layers of the gauze has of course a pronounced gray or grayish-black color in the beginning.

The colloidal silver is soluble in serum in the proportion of 1 to 25; and it remains in solution in albuminous fluids in spite of the salts that they contain. The small amount of fluid required is probably always present in the abdominal cavity after operations; one or several of the pills are soon dissolved, and the solution is taken up by the lymphatic channels of the omentum. If the pure silver solution anywhere comes in contact with pathogenic cocci, lactate of silver will presumably be formed and exercise its antiseptic effect.

Nitroglycerin in Spasmodic Croup,—Dr. G. G. Marshall (*Atlanta Med. Weekly*) has found in nitroglycerin an ideal remedy for spasmodic croup where steam inhalations and emetics fail or depress too much to allow respiration. He recommends small doses frequently repeated. To children from five to ten months old he gives from one ten-hundredth to one six-hundredth of a grain, repeated in from five to ten minutes if no effect is noticeable. Usually in ten minutes there is a marked relief in the dyspnoea and the general appearance of the child. By repeating these small doses from every 15 minutes to once in two or three hours, the laryngeal spasms are controlled. Sometimes it is not necessary to repeat it more than once or twice; at other times the remedy has to be continued at more or less frequent intervals for two or three days.

Pruritus ani is often promptly relieved by the application of an ointment of calomel, 80 grains to an ounce of vaseline. For pruritus vulvæ is also efficient.—*Med. Council*.

It is often much more difficult to diagnose fracture of the ribs than is commonly thought to be the case. If you cannot satisfy yourself that a rib is broken, but get many of the subjective signs of such a fracture, treat the case as if you were sure that the solution of continuity really existed.—*Med. Council*.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

Headache From Nasal Causes.—J. A. Thompson, M. D., Cincinnati: Ohio. In a paper read before the Cincinnati Academy of Medicine, the doctor states that—Headache is so frequently found associated with obstructive lesions of the nose that its presence and cure by operations in the nose are every day observations of the Rhinologist. The author cites several typical cases of nasal obstruction in which headache was the prominent symptoms, and outlines the treatment which resulted in a cure.

Nasal obstruction is caused by various pathological conditions, as for instance: A turgent condition of the mucus membrane covering the turbinals, or of the septum; true hypertrophy of the turbinials; spurs or ridges on the septum, polypoid growths, foreign bodies, and in tropical countries the presence of maggots in the nose.

In all cases of headache due to nasal causes, mouth breathing is more or less pronounced. The treatment to be successful must be directed toward clearing the nasal passages of all obstructions to respiration.

The methods of treatment for each cause can be found in any good work on rhinology. In some cases general treatment must follow local measures but ordinarily this is not needed as with the relief of the nasal stenoses the headache promptly disappears and the general health rapidly improves. No patients are more grateful than those who after years of suffering have had the "grim hand of a nasal headache removed from their brow."

A Rival of Professor Schenck.—Dr. Charles Ignatius Proben, of New York, has brought back with him from Porto Rico, certain "charms" which he says are most implicitly believed in by the natives. When a woman becomes pregnant she goes to her priest and, if she longs for a boy, pays him to bless a little image of a boy, which she then wears upon her person during the whole period of gestation. If, however, she prefers to present her husband with a girl, an image of a girl is blessed, and is then worn by the prospective mother. Dr. Proben also exhibits an image of two plump breasts of milk, which the mother who dreads her supply of nourishment for her baby may run short, wears with a firm and abiding faith in its galactogog properties.

The Boston Emergency Hospital has adopted the use of an electric circular saw to take the place of the knife in making amputations. Dr. Galvin claims that by its use no anesthetic is necessary, as the operation is painless, and it shortens the time, as it cuts through almost instantly. This he claims lessens the shock. No ligatures are needed, and all the cases so far treated have done better than by the old method.

Therapeutic Hints.

Acute Colic.—

R Tinct. opii deodorat, ʒ i.
Chloroformi, ʒ iss.
Camphoræ, gr. iv.
Ol. cajuputi, ʒ i.
Aquæ, ʒ ij.

M. S. One teaspoonful every hour.

—*Med. Record.*

In Irritable Uterus, Diffuse Pelvic Pains, and hysterical neuroses in various parts of the body:

R Potassi bromidi, ʒ i.
Aquæ, O i.

M. S. Use in a vaginal injection.

—DR. MUNDE.

Irritable Bladder After Confinement.—

R Salol, aa ʒ ij.
Tinct. hyoscyami, aa ʒ.
Inf. Buchu ʒ vi.

M. S. Tablespoonful three times a day.

—DR. W. E. FOTHERGILL.

Stomatitis in Smokers.—

R Salol, i.
Tinct. catechu., 2.
Spir. menth. pip., 50.

M. S. A teaspoonful in a glass of warm water as a mouth wash.

—*Med. Record.*

Sirope de l'Enfant Jesus.—This calming syrup, employed in young children for the relief of insomnia, convulsions, etc.; is said to represent in each teaspoonful:

R Potass. brom.,
Sodii brom.,
Ammon. brom.,
Calcium Brom., āā 0.05 cgm.
Syr. belladonnæ, (Fr. Cod.) 1 gm.
Syr. aurantii flor., 5 gm.

Dose: One to four teaspoonfuls according to age.

—*Bull. de Pharm. de Lyon.*

Whooping Cough.—

R Tinct. belladonnæ, ʒ ij.
Phenacetin, ʒ iiij.
Spts. frumenti (q. s. solve phenacetin), ʒ i.
Fid. ext. castaneæ, ʒ vi.

M. S. Teaspoonful every three hours until the face flushed; then every three, four, or six hours, as needed to control the cough, in a child of six years.

—DR. R. A. LANCASTER, *Florida Health News*, December, 1898.

Whooping-Cough.—

R Tinct. belladonnæ, ʒ ij.
Phenacetin, ʒ iiij
Spts. frumenti (q. s. solve phenacetin), ʒ i.
Fld. ext. castaneæ, ʒ vi.

M. S. Teaspoonful every three hours until the face flushes; then every three, four, or six hours, as needed to control the cough, in a child of six years.

—DR. R. A. LANCASTER, *Florida Health.*

A NEW TABLET

By all druggists or sent by mail on receipt of \$1.00.

WM. R. WARNER & CO'S

Nervitone Tablets

(Trade Mark)

R Phosphorus, 1-100 gr.
Ferri Carb. 1½ grs.
Asafetida, ¼ gr.
Ext. Sumbul, ½ gr.
Ext. Nux Vomica, 1-10 gr.

Dose—2 tablets before meals for adults.

TAKE NO SUBSTITUTE.

PHOSPHORUS "It exists mainly in the nervous centers in the form of a peculiar compound with fatty matter, which has been named 'protagon' just as iron is united with haematin in the blood. It forms more than one per cent of the human brain."—Hughes

Phosphorus is a stimulating nerve tonic, and in suitable cases a true tissue food in every sense of the word.

IRON is added for its general tonic effect and for its action on the blood, which is generally impoverished in the conditions just mentioned.

ASAFETIDA has been proven of value in nervous irritability, and is a stimulant to the alimentary tract.

EXT. SUMBUL The following has been written of Sumbul. "On the nervous system Sumbul acts as an efficient nerve tonic."

EXT. NUX VOMICA A bitter tonic, universally used for its influence on the nervous system.

By glancing at the above it will be seen that in Nervitone tablets we offer a combination of well-known nerve tonics and stimulants. It is a tablet that will cover a wide field of usefulness in physicians' prescribing. When the indications are for a prescription to correct conditions due to asthenia, neurasthenia or nerve exhaustion, whether the result of debilitating diseases or excesses, we have in Nervitone tablets a remedy which will give satisfactory results.

The drugs used in the manufacture of this pill are pure and active.

Specify Warner & Co. to obtain satisfactory therapeutic effect.

SUPERIOR TO PEPSIN OF THE HOG
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A SPECIFIC FOR VOMITING IN GESTATION IN DOSES OF 10 to 20 Grains.

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When writing, mention the N. C. Medical Journal.

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Reading Notices.

BETTER STILL—The influenza has been quite prevalent in a number of cities during the past month. In Richmond, there have been many cases, though no deaths distinctly attributed to it. It is affecting mostly those who have had the disease almost annually during the past few years. Although the attacks of this year are relatively mild, they are severe enough to keep business men away from their places of business. Phenacetin, or better still, antikamnia, with salol or quinia, and a little powdered digitalis added, has proved a satisfactory plan of treatment, presupposing, of course, that the bowels are kept open, the secretions of internal organs are attended to, and that the patient is kept in-doors, especially at night or in bad weather.—*The Virginia Medical Semi-Monthly*.

ACTION AND USES OF HEROIN.—*Med. Review of Reviews*.—A writer in *Weinor Med. Battles*, 1899 says that Heroin dissolves readily in acidulated solutions from which it is precipitated by alkalies. It is derived from morphine by replacing the H of both hydroxyl groups with acetyl groups. It is a substitute for morphine and codine, is free from the unpleasant collateral action of the latter substances and may be given in smaller doses. Its most characteristic action is upon the respiration, for by neutralizing air-hunger to some degree it will be found of great value in dyspnoea, especially when due to phthisis and bronchitis. Given in doses of from one sixteenth to one eighth of a grain, a sedative action upon the respiration is perceived within an hour. Cough, if present, is soothed, and sleep soon sets in. Heroin may be given in doses of one sixteenth to one eighth grain three or four times daily.

CASE 1.—M. S., fifty-two years of age, male, was some years afflicted with an obstinate form of erythema, probably of specific origin, which heretofore had resisted the usual constitutional and local treatments. The itching of the eruption was intolerable, the anæmia very pronounced—the whole constitution run down. Six weeks medication with Iodia, supplemented by extract of malt and cod liver oil, brought the case under control. I attribute the good effects of Iodia in this, as in other cases, not so much to its mineral ingredients (potass. iodide and ferri phosphate) as to their combination with the fresh principles of vegetable alteratives. I, for my part, believe that only the extracts of the green or fresh plants are reliable for therapeutic effects, the common fluid extracts of the dried plants having proven mostly inert in my hands.

Case 2.—R. W., aet. 38, female, presented glandular enlargements complicated with functional disorders (dysmenorrhœa). The persistent administration of Iodia brought marked improvement and patient is on a fair way to recovery.

Case 3.—J. P., male, aet. 60, blood poisoning with chemicals used for dyeing, manifesting itself in a rupia-like eruption and general malaise. Iodia promptly eliminated the morbid matter.

Allegheny, Pa.

A. ZIEGLER, M. D.

To Prevent Surgical Shock.—If you expect to get much shock from an operation, remember that here again prevention is better than cure. Use a little morphine before operating to quiet the nervous system, keep the patient very warm before and during the operation, as well as after operation. Small doses of strychnine before the operation are also indicated.

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Empyema—Its Diagnosis and Treatment.*

By C. D. HILL, A. B., M. D.

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CASE I.

ON November 18th, 1897, was called to see Patrick B., age 8 years, who had been sick about 24 hours, suffering from nausea, vomiting and abdominal cramps. Temperature was $102\frac{1}{2}$, pulse 120, and respirations 24. There was slight pain in right side, but physical examination showed nothing definite till about 30 hours afterward, when diagnosis of pneumonia was made. The consolidated area was limited to the lower lobe of the right lung. There were no unusual features about the case; the patient was discharged convalescent in eight days, at which time resolution was taking place, and there were no indications that there would be any delay in the restitution, or that any complication would arise.

On the evening of December 11th, was called to see another member of the family, and, on questioning the mother as to Patrick's condition, found that she thought he was well, but that for the past four or five nights he seemed to have fever. His temperature was taken and found to be 102, pulse 124 and respirations 26, and the physical signs pointed to right Empyema. This was verified by introduction of needle and withdrawal of pus. On December 16th Thoracotomy was done under chloroform anaesthesia. An incision, three inches long, was made in the 7th intercostal space and posterior axillary line, and about 12 ounces of so-called laudable pus evacuated. With the movements of respiration the pus was forced out in intermittent jets, after the first gush, showing some expansion of the lung. Two fenestrated medium sized rubber drainage tubes were introduced about two inches within the cavity. Two ligatures of silk worm gut approximated the skin, and a third ligature, of same material, was passed through one of these and through the drainage tubes. A copious antiseptic dressing was applied, which

*Read before the St. Francis Hospital Medical Society, February 1st, 1899.

was changed daily for the first eight days. The temperature dropped to normal soon after the operation and his condition steadily improved. The cavity was irrigated for the first five days after the day of the operation with warm boracic acid solution. The drainage tubes were gradually shortened and on the 12th day, on account of the discharge becoming serous and small in quantity, were dispensed with. About four days later the opening closed, and the physical signs showed but little difference in the two sides of the chest. The patient was instructed in pulmonary gymnastics, and when I examined him again on January 13th—27 days after the operation—the affected side had returned to the normal condition, and there was only a small scar left to tell the tale.

CASE II.

Frederick H., age 15 years, was admitted to Surgical wards of St. Francis Hospital April 19th, 1897. He gave the history of having been sick about two months, first with pneumonia in left side and then with an illness which confined him to bed. On entrance to hospital his general condition was poor, and there were evidences of great emaciation and loss of strength. His evening temperature was 104, pulse 130 and weak. Physical examination and introduction of the needle showed left empyema. There was also marked lateral curvature of the spine. On the following day, under ether anaesthesia, thoracoplasty was performed. Just below the inferior angle of the scapula an incision, 4 inches long, was made through the skin, soft parts, and periosteum down to the 8th rib. The periosteum was stripped from the rib in front and behind, the rib was elevated, and one and one-half inches resected with the bone forceps. The incision was continued through the gutter in the periosteum and into the pleural cavity, when about 16 ounces of pus was evacuated. The pus was somewhat offensive, but not so fetid as we see in some cases. Drainage tubes were introduced and held in place by safety pins.

The after treatment was similar to that in Case I, though of much longer duration, and the improvement much slower. About three weeks after operation and evening temperature arose above 103, and patient had hectic appearance. Dressing forceps was introduced and the cavity explored, as another pus pocket was suspected, but none was found. As the drainage seemed to be insufficient longer tubes were introduced. The temperature gradually dropped to normal and the patient slowly but steadily improved. He left the Hospital June 1st with a discharging sinus which did not close till about two months later. I saw this patient about ten days ago. He now weighs 150 pounds, and is strong and robust. The respiratory sounds are normal over the old empyema. At the site of the operation is a depressed cicatrix showing adhesion of the soft parts to rib. The bone is reproduced; only a slight lateral curvature of spine can be noticed.

These two cases will, I think, be sufficient to bring out the principal points I wish to make in the diagnosis and treatment of pyothorax.

In looking up the etiology of empyema, I find that it is very rarely primary, but that in 95 per cent. of cases it is secondary to lobar pneumonia,

as in the two cases mentioned. So, to begin with, it should be diagnosed from pneumonia, and especially the so-called unresolved pneumonia. Later, under treatment, we shall find that this diagnosis should be made as soon as possible. When we call to mind the pathological conditions in the two diseases, and recall the physico-dynamics of the chest wall and the organs within, it would seem easy to make a tabulated statement of the diagnosis between empyema and pneumonia. Under the column Empyema we would place as the ~~most~~ diagnostic physical signs the following: Enlargement of the affected side, bulging of the intercostal spaces, displacement of cardiac, impulse diminished or ~~absence~~ of movements in respiration, loss of vocal fremitus, loss of respiratory and vocal sounds, and on percussion marked dullness or flatness. In our pneumonia column we would place quite a different list. Diagnostic tables apply only to typical cases, the kind we do not always meet in practice. But we have a means, and the only means, of establishing our diagnosis; and, while, I would not have you neglect the physical examination in all its details, nor discard the symptoms and history of the case, it is upon the needle we must depend to make a positive diagnosis of pus in the pleural cavity. Furthermore, it was by the introduction of the needle in Case I., and the ocular demonstration of pus, that enabled me to overcome the prejudice of the parent to the use of the knife. It was the sight (and smell) of pus that helped him to give up painting and repainting the chest with tincture of iodine, which proceeding was authorized by another physician, who saw the case in his office, but for some reason did not introduce the needle. Would that time and the gravity of my subject permit me to apostrophize on that wonderful and mysterious drug, iodine, which has absorbed many swamps of ignorance, but few drops of pus. We will not always, on the first introduction of the needle withdraw pus; it may be too thick to flow out, or the point of the needle may not reach the pus cavity. But if the physical signs bear us out, we will try again and again, with different sized needles and in different positions. Holt mentions a case in which he did not demonstrate pus till the seventh puncture; Ripley, a case where only after the twelfth puncture was pus found, and then he evacuated 120 ounces.

It is only by the use of the needle that we can diagnose a serous from a purulent Pleurisy. This was impressed forcibly on my mind about four months ago in the case of a man 24 years old, whom I found with the signs of fluid in the pleural cavity. The constitutional symptoms were so severe and the improvement so slow, I suspected the fluid might be pus instead of serum, but the needle, when introduced on two occasions and in different positions, showed it was serous. Without the aid of the needle we could not positively diagnose empyema from the following: An old thickened pleura, tubercular consolidation of the lower lobe of the lung, and tumors of organs adjoining the pleural cavity.

So, to make a long story short, our diagnosis of empyema should be established by the introduction of the needle. If the needle and the site of

the introduction are made aseptic, we need fear not. It is best to introduce the needle at a point where we expect to operate.

This brings us to the Treatment of pus in the pleural cavity.

I look upon empyema as a surgical disease and should be treated by the free use of a knife as soon as a diagnosis is made. Senn says "An empyema is nothing more than an abscess in the pleural cavity and should be treated as such." Osler says "It is really a surgical affection," and further on "It is sad to think of the number of lives which are sacrificed annually by the failure to recognize that empyema should be treated as an ordinary abscess, by free incision." The objects to be accomplished are to evacuate the pus, establish drainage, and the retracted lung a chance to expand, for it is by expansion of the lung that a complete cure is effected.

As in other pathological conditions nature does wonders, so in empyema a very, very, small proportion of cases get well without the aid of the surgeon. The pus may perforate a bronchial tube, or it may perforate the outer chest wall, or at least present under the skin and beckon to the attendant and say "cease poulticing, and come and open me." But these terminations are very rare, and we should strive to make them still rarer, for at best the cure is very slow and often taxes the patient's strength to the uttermost.

I have had no personal experience with aspiration of the pus in pyothorax as a means of cure, but it seems unsurgical, and should never be done except where you cannot get consent to do the proper operation.

There has been a great deal of discussion as to whether it is better to make a simple incision in the intercostal space, or to go further and make a resection of one or more ribs. Some surgeons perform thoracotomy, others thoracoplasty in all their cases. Senn says "resection should always be done in empyema." Carl Beck says that during 11 years he treated 134 cases by resection of one or more ribs. Goodlee says he removes a piece of rib as a routine practice with very few exceptions. Other surgeons, and perhaps the majority, rarely ever resect a portion of the rib, but instead perform thoracotomy. The main object to be accomplished is to establish and maintain drainage, and, if we can accomplish this by simple incision, I see no reason to do more, even though Senn says, "Resection of such a small portion of the rib does not add to the gravity of the operation." On the other hand, if we cannot accomplish thorough drainage for any reason, for example, if the intercostal space is small and the rib would press on the drainage tube, then we should resect a portion of the rib. We often have to do this in old and neglected cases, and occasionally after operation by incision, where the lungs do not expand, and consequently the chest wall begins to sink in, the rib thereby pressing on the drainage tube. In Case I the ribs were small, the intercostal spaces wide, the case of short duration, and hence simple incision was deemed sufficient, and this proved true. On the other hand Case II was of longer duration, there were consequently more adhesions around the retracted lung, which prevented it from expan-

sion, and, when we contrast the history of the two cases after the operation, incision alone would not have been sufficient. This difference in the after history was certainly not due to the operation of resection itself, for even with resection, the drainage was not entirely satisfactory. So, while each case should be treated on its own merits, the rule should be to reserve old and neglected cases for resection.

Though it is much more satisfactory to use general anaesthesia for either operation, for incision without resection we may use local anaesthesia, if there is any contraindication to the use of chloroform or ether.

Where we have a choice of the site of the operation, we should select a point a little external to the inferior angle of the scapula and in the 7th or 8th intercostal space, and if we resect, we should take out a portion of the 8th rib. Here we get better drainage than if we go higher up, and if we go lower down we may puncture the diaphragm.

I will not detail more of the technique of the operations for incision or resection than mentioned under narration of the two cases. In operations for pyothorax the strictest antisepsis should be carried out, for it will not help our patient if an acute sepsis is added to the chronic poisoning of the pneumococcus.

¹ Rubber drainage tubes should be used, as we can better adapt them to the pus cavity than could be accomplished by metal tubes, and furthermore, they do not cause so much after pain, nor are they so apt to injure the lung. Rubber tubes drain out the pus, especially if thick, better than strips or wicks of gauze, and are easier to introduce and withdraw. Occasionally we may have to make a counter opening and draw the drainage tube through. I have thought since this would have been better in Case II.

In double empyema it is best to operate on one side and probably aspirate the other, and in three or four days operate on the aspirated side.

Sometimes after incision or after resection, especially in old and long standing cases, we will not effect a cure, but will still have a chronically discharging cavity. In such a case, on account of adhesions to the lungs, or thickened pleura, or, perhaps, loss of elasticity of the tissue of the long retracted lung, the lung does not expand. Hence we make an effort to cause the outer chest wall to sink into the unexpanded lung, and thus obliterate the cavity. This is the object of Estländer's operation, which consists in resection of from two to four inches of several ribs, or as many as bound the pus cavity.

As a substitute for Estländer's operation, and with the same object in view, Schede has proposed, not only to resect the ribs, but all the soft parts, in fact, the whole of the outer chest wall except the skin. Over this veritable window in the chest he places the skin flap.

The after treatment of operated cases of empyema consists of daily dressings, and, if the pus is fetid, irrigations. It is a matter of individual opinion as to advisability of irrigations if the pus is not fetid. It is best not

to wash out the cavity at the time of operation as this has caused sudden collapse.

We heal the pus cavity, not from the bottom, as in an ordinary abscess, but principally by causing expansion of the lung. Hence the patient should be instructed to systematically make forcible inspirations and expirations. If a child you can also tell him to blow horns, etc., as was done in Case I; if something more elaborate and impressive, for an adult, if desired. you may construct an apparatus consisting of bottles filled with water and connected by tubes; with this arrangement, which Oslen says, is largely used in Johns Hopkins Hospital, the patient by forced expiration displaces the water from one bottle to the other.

To sum up my conclusions, for the diagnosis use the needle; for treatment make incision, or if necessary, incision plus resection, for after treatment use rubber drainage tubes, and promote lung expansion.

The Duration of Acute Gonorrhea and the Importance of Treatment.*

By H. T. BASS, M. D., Tarboro, N. C.

GENTLEMEN, I do not propose to try to offer anything new on the subject of my paper to this body; but I do want to impress upon our mind the importance of paying due attention to this disease, and correcting an impression which seems to me to be somewhat general among the laity, and it is also in the profession—that Gonorrhea is an insignificant disease and is no worse than a bad cold, as the expression is. The subject of this paper was suggested to my mind by a remark made by a patient in my office, that a friend of his advised him that the clap was not anything, and that Dr. So-and-So guaranteed to cure it within ten days. I told him he had better go, that it would take me longer than that. Then I began to look up the subject and found that all good authors and writers on the subject put the duration under the best and persistent treatment on an average of six to eight weeks, and I also found the impression prevalent among the general practitioners to be about three weeks. As the best authors do not claim such good results in their cases, it is very evident to me that many, if not all, of those rapid cures, must be of rather doubtful character to say the least. I would not be understood as questioning the honesty and good faith of those claiming to cure gonorrhea in three weeks. There can be no doubt that these gentlemen and their patients are sincere in their belief that their cases are cured, because the pain of urinating is gone, or nearly gone, and they have no discharge, or nothing more than a thin watery discharge, or a morning drop before or after urinating. Now, as a matter of fact, the great majority of these cases are not cured, although the physician and patient are both delighted over the presumed success of the "sure and quick" remedy, and are perfectly honest in assuring such to be the case.

*Presented to The Seaboard Medical Society at Wilson, N. C., Jany. 12th 1899.

It seems to me that the greatest trouble and the cause of much misunderstanding lies in the fact that the average general physician does not take the trouble to use the means of determining when a case of gonorrhea is really cured. Absence of discharge at the meatus too often means to him a cure of the disease. No examination of the urine for clap-shreds is made and very little attention seems to be generally given to the importance of such examinations. I follow the examination taught at the University of Pennsylvania, and the Philadelphia Polyclinic in the Genitourinary Department. I ask my patient not to urinate for some time before he comes to me. Take two clean glasses and let him urinate part of his urine in one glass, and then part in the other, and if clap-shreds appear in the first glass, I know my patient has anterior urethral trouble, and if they appear in the last glass, he has posterior trouble and often it will take some effort for the posterior constrictor muscles to force the clap-shreds out, and if not satisfied with the appearance of the shreds, I strain them with methyl blue and put them under the microscope and there the telltale germs will often be seen. Often the constrictor muscles will force the germs into the bladder. We, as general practitioners, often see the result of a neglected and badly treated case of clap in the shape of strictures of the urethra that often make the individual miserable for life, and a source of annoyance to the physician.

If what our gynecological brethren claim in regard to the longevity and the depredations of the gonococcus be true, it would seem to me to be a matter of the utmost importance that we, as general practitioners, should do all in our power to correct this widespread notion that gonorrhea is a simple disease, easily cured in from ten days to three weeks, provided Dr. A. or Dr. B. is consulted. For my part, I believe with Taylor, Christian, White, Martain, and others that I have consulted, that gonorrhea may be, and very often is, one of the most formidable diseases that can attack man.

What, then, is the duration of acute, uncomplicated gonorrhea? Finger states that cases of acute general urethritis with no unusual symptoms last from five to six weeks. He allows two weeks for the increasing stage, one for the stationary, and two or three weeks for the mucous terminal period. He also states that cases with short incubation and rapid onset do not last as long, all things being equal, as those with a long period of incubation. Prof. R. W. Taylor says a patient should consider himself very lucky to be cured in from six to eight weeks. Keys places the average duration at four to six weeks.

Brewer makes a striking statement regarding this matter (in Morrow's system of Genito-Urinary surgery.) Referring to an article written by himself upon the rapid cures made in a series of cases by the use of bi-chloride of mercury, he states as follows: "Experience in the treatment of urethral diseases has taught me that the simple cessation of a discharge by no means indicates a cure of the disease; and I am prepared to say without the slightest hesitation, that it is my belief that had a careful and thorough examination been made in each instance at the time when I reported the cessation of

all discharge, not one case of my three series of cases would have failed to show unmistakable evidence of an uncured urethritis." White and Martain give the duration at from six to eight weeks.

Prof. H. H. Christian, of the Philadelphia Polyclinic, read a paper before the American Genito-Urinary Association, at Atlantic City, in which he gave the statistics of 187 cases, which he divided into two classes—those that had a clap for the first time, 117 cases, and 70 cases that had the disease for the second time or oftener. Of the 117 cases 90 had general urethritis and the discharge persisted for over four weeks in 79 of the 117 cases and 47 of these 79 were under treatment from seven to ten weeks. In his second series of 70 cases with a history of having had gonorrhea one or more times before, by their own statement they were under treatment during their former attack; fourteen for four weeks, twenty for eight weeks, and twenty for eight to ten weeks. I only take that part of the statistics that was under treatment for four weeks or over; they constitute the greater number of the cases. All of these were under treatment at the dispensary of the University of Pennsylvania, where the statistics were compiled, and during their second or third attack, as the case may be, ten were under treatment for four weeks. He considers the second series of 70 cases of importance, because 40 of them were under treatment by their own statement in former attack from eight to ten weeks, and 42 of them were under treatment at the dispensary during this attack from four to ten weeks. He sums up by saying that of the 187 cases of acute gonorrhea, 17 remained under treatment and he believed carried out the treatment faithfully until they were pronounced cured. Of the remainder, 170 cases, 121 were under treatment from four to ten weeks, but he does not seem to be certain of their good deportment. The record of the 17 cases he considers the most important because they were composed of medical and dental students, and married men who were anxious to get well and stayed under treatment until they were pronounced cured, and abstained from all indiscretion, and each case was considered cured when the urine contained no clap-shreds with pus and gonococi. The length of time required to cure these 17 cases was as follows: three cases in four weeks, three cases in six weeks, two cases in seven weeks, four cases in eight weeks, and five cases in ten weeks. Three of these had anterior and fourteen general urethritis, and the duration was over six weeks in eleven cases. I have a record of two cases of general urethritis recently treated, one by the hand syringe method at his home, and internal medicine, that lasted twelve weeks, and the other by the irrigation method at my office twice a day combined with internal treatment, that lasted eight weeks, and I believe these cases abstained from all indiscretions.

The diagnosis and cause of gonorrhea does not enter into this paper, as we are all familiar with the fact that it is like the poor, "we have it with us always," it is also a fact, if the statement of the gynecologist be true, that over fifty per cent. of his cases are the result of gonorrhea, that we, as general practitioners, are feeding their tables by not more fully impressing on

our patients the gravity of their trouble and the importance of staying under treatment until they are well.

Under treatment which hardly comes under the heading of my paper, I would like to call your attention to the innumerable drugs and plans of treatment so highly extolled in the eulogistic articles of our weekly journals, all claiming to cure gonorrhea in from two to three weeks. Methods claiming to cure in six to eight weeks are not in vogue, and are therefore, not published, but the newspapers are full of the praise of Big G—and similar nostrums, and what they can do in from two to three weeks. The philosophy of most of these quick cures is based, as a rule, upon the early employment of some strong astringent injection, causing, as pointed out by Taylor, a rapid and early onset of the mucous terminal period of the disease, the chief characteristic of which is a thin watery discharge which might readily pass unnoticed by a careless or unobservant patient.

I have nothing new in treatment to offer to this body. There are four methods employed; 1st, internal medication, alone; 2nd, internal treatments combined with a hand injection; 3rd, irrigation of the urethra, alone; 4th, irrigation combined with internal treatment. I prefer the fourth mode, irrigation and internal treatment. I irrigate with permanganate of potassium, 1 to 4,000 increasing gradually every two or three days until I reach 1 to 1,000 or 1 to 500 in about two weeks, and I then give a hand syringe with a solution of some mineral astringent such as sulphate of zinc or acetate of lead, two to three grains to the ounce of water. Internally I give first a saline diuretic for eight to ten days and then balsam of copaiba and oil of sandalwood, or some remedy of that class until the case is well. I really prefer nitrate of silver, 1 to 6,000, increased to 1 to 1,000, but owing to its staining properties, it is disagreeable to the patient. Also, in my section of the country, the water is full of chlorides, and so few of our druggists use distilled water, that the silver is decomposed in the water and ruined.

In closing I will say that I have tried to impress three things upon this body by the statistics I have given.

First.—That gonorrhea is a more prolonged and serious affection than it is usually considered by the general practitioner and by the laity.

Second.—That the period of time for a cure in uncomplicated general gonorrhea is from six to eight weeks.

Third.—The importance of making an examination of the urine for clap shreds before deciding that a case of gonorrhea is cured.

To Remove Nitrate of Silver Stains.—The *National Druggist* recommends the following: Dissolve fifteen parts of iodide of potassium in fifty parts of water, and to the solution add ten parts of iodine. When the latter is dissolved add sufficient water to make five hundred parts. Keep in a well-stopped bottle. Treat the spots with this, and after a few minutes with a ten per cent. solution of caustic soda, which will remove the silver iodide formed by the first treatment.

The Care of the Sick and Wounded in the War of the Revolution.*

BY FRANCIS R. PACKARD, M. D., PHILADELPHIA, PA.
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DR. NORRIS ⁶ quotes the following statement from *Towne's Pennsylvania Evening Post*, No. 342, for April 22nd, 1777:

"BOSTON, April 10th, 1777.

"On Monday arrived Dr. John Morgan, late Director-General of the Hospital, and Physician-in-Chief to the Continental Army. He has been informed that several evil-minded persons have taken upon them to circulate a number of false and groundless reports in this place, with a view to injure his reputation in that public station, and amongst other particulars, has learned that loud clamors have been industriously raised against his having taken possession of the medicines, shop-furniture and laboratory of Dr. Sylvester Gardiner and Dr. William Perkins, of this town, for the use of the army; and likewise, that many of the sufferings of the sick in the last campaign arose from his having unjustly withheld from them (or from their regimental surgeons) those stores which they were entitled to draw from the general hospital, suggesting, in the first instance, that his motives for so doing was his private emolument, in the latter, to oblige the sick to be sent to the general hospital, that he might stop their rations whilst there, and put the money in his pocket. As these reports do not merely affect private character, but concerns the public to know the truth thereof, he hopes for their indulgence in making it known in a newspaper, that he has called on the persons pointed out to him for more particular information of the grounds of these reports, and means to lay the matter of his inquiry before the public.

"That the necessary information to clear up this matter may not be kept back, he does hereby publicly advertise, that if there are any persons who can pretend to a knowledge of these facts, who will take upon them to answer the charge, he now writes them to step forth and state their accusation against him in either of these particulars, or any other that regards the faithful discharge of his public trust, so that the said facts may be properly ascertained and examined. In return, he undertakes to lay before the public a faithful and exact account of every proceeding they require relative to the discharge of his duty in the above station, by which the world will be enabled to judge whether any of the charges are well founded, or only proceed from a spirit of malignity and detraction."

Doctor Morgan published many notices in newspapers in different parts of the country inviting any one who had charges to make against him to come forward and prefer them.

The congressional committee after a careful investigation completely exonerated Doctor Morgan from the charges brought against him, their resolutions to that effect being placed upon the minutes on June 12, 1779.

*An address delivered before the Judson Deland Medical Society, January 8th, 1899.
⁶ Early History of Medicine in Philadelphia.

On April 11th, 1777, Doctor William Shippen, Jr., was appointed Doctor Morgan's successor as Director-General and Physician-in-Chief of the hospital. He was likewise a Philadelphian. He had graduated at Princeton College, or as it was then known the College of New Jersey, in 1754, had studied medicine for three years in his father's office, and had then spent five years pursuing his medical studies abroad, during which time he was made an M. D. by the University of Edinburgh. He was the colleague of Dr. Morgan in the founding of the medical department of the University of Pennsylvania, and delivered the first course of lectures on Midwifery ever given in this country. Doctor Shippen was an active, alert, and conscientious man, and he was determined to maintain the high standard in his department which had been inaugurated by his predecessor. Congress also appointed the following medical officers at the same time as Doctor Shippen, to the different divisions of the army.

In the Middle Department, Doctor John Cochran was made Physician and Surgeon-General, with Doctor Walter Jones as Physician General, and Doctor Benjamin Rush as Surgeon General. In the Eastern Department, Doctor Isaac Foster was appointed as Deputy Director-General, with Doctor William Burnett as Physician and Surgeon-General, and Doctor Ammi Ruhamah Cutter as Physician-General, and Doctor Phillip Turner as Surgeon-General. In the Northern Department Doctor Jonathan Potts was appointed Deputy Director-General, with Doctor John Bartlett as Physician and Surgeon-General, and Doctor Maladie Treat as Physician-General, and Doctor Forgue as Surgeon-General.

Doctor William Shippen, Jr., held the office of Director-General and Physician-in-Chief of the hospital until January, 1781, when he resigned. His successor was Doctor John Cochran, who was a native of Chester County, Pennsylvania, and had served with great credit as an army surgeon in the colonial wars between the English and French. During the Revolution he had held many important positions and had won the high personal regard of General Washington. He continued to discharge the duties of his position in the most satisfactory manner until the war was over.

We are all familiar with the terrible privations undergone by the Continental soldiers owing to the poverty of the Revolutionist's treasury, but I think nothing can bring their sufferings more forcibly to our minds than the fearful scarcity of medical supplies for the army, which existed throughout the struggle.

Norris,⁷ in this connection, refers to a general order issued from headquarters in 1776 requiring all regimental surgeons to forward a report to the Director-General of the Hospital of the medical supplies which they had. Fifteen regiments responded to the order. All the instruments possessed by the surgeons and mates of these regiments and being used by them in the public service, were their own personal property, and they amounted to the

⁷ Early History of Medicine in Phila.

following, viz.: six amputating sets, two trephining sets, fifteen pocket-cases, seventy-five crooked needles, and six straight needles.

These gentlemen could also raise among themselves besides the above enumerated instruments, four scalpels, three pairs of bullet forceps, half a paper and seventy pins, a very few ligatures, tourniquets, and bandages, and two ounces of sponge.

Doctor Norris quotes a number of most interesting extracts from letters which he had had the opportunity of reading which bear upon the same point. Thus Doctor Binney, of the general hospital was sent from the army in New York to Philadelphia to purchase some urgently needed surgical instruments. But he reported, "that there was no instruments to be purchased at any rate, and that the only workmen in the city that could make surgeons' instruments was engaged by Congress upon arms, and could not undertake any work for a long time to come."

Doctor James Hutchinson wrote "that during the winter of 1778 there were such a want of lancets, that numbers of the regimental surgeons, and some of those of the flying hospital were without one."

The British troops evacuated Boston on March 14, 1776, and hostile operations were then transferred to other localities. The northern portion of the State of New York became the theatre of much fighting, and in July, 1776, a hospital was established in the city of Albany for the reception of the sick and wounded of the American army. Doctor Thacher was assigned to service at this hospital, and has left us a most interesting account of various incidents which occurred during his tour of duty. The hospital was located in a building which had been used for the same purpose in the wars between the English and French. It had two stories with a wing at either end, and a piazza in front, and could accommodate 500 patients. It was pretty well filled up after the battle of Crown Point and Fort Ticonderoga. On October, 24, 1777, *Thacher's Military Journal* contains the following entry:

"This hospital is now crowded with officers and men from the field of battle. Those belonging to the British and Hessian troops, are accommodated in the same hospital with our own men and receive equal care and attention. The foreigners are under the care and management of their own surgeons. I have been present at some of their capital operations and remarked that the English perform with skill and dexterity, but the Germans, with a few exceptions, do no credit to their profession; some of them are the most uncouth and clumsy operators I ever witnessed and appear to be destitute of all sympathy and tenderness towards the suffering patient. Not less than one thousand wounded and sick are now in this city; the Dutch Church and several private houses are occupied as hospitals. We have about thirty surgeons and mates, and all are constantly employed. I am obliged to devote the whole of my time from eight o'clock in the morning to a late hour in the evening, to the care of our patients. Here is a fine field for professional improvement. Amputating limbs, trepaning fractured skulls, and dressing the most formidable wounds, has familiarized my mind to scenes of woe. A

military hospital is peculiarly calculated to afford example for profitable contemplation and to interest our sympathy and commiseration."

Other hospitals for the continental troops during hostilities in this region were established at Peekskill and Fishkill on the Hudson. They were well crowded at several times during their existence as the fighting in their neighborhood was on occasions very severe. There was another hospital at Fort George and a letter from Doctor Jonathan Potts to Doctor John Morgan, which is given in full by Doctor Norris. (Loc. cit.), contains the following in regard to the scarcity of the necessary supplies in it.

FORT GEORGE, AUGUST 10TH, 1776.

"The distressed situation of the sick here is not to be described, without clothing, without bedding, or a shelter sufficient to screen them from the weather. I am sure you know humanity will be affected, when I tell you we have at present upwards of 1,000 sick, and crowded into sheds, and labouring under the various and cruel disorders of Dysenteries, Bilious Putrid Fevers, and the effects of a confluent Smallpox; to attend this large number, we have four seniors and four mates, exclusive of myself, and our little shop doth not afford a grain of Jalap, Ipecac, Bark, Salts, Opium, and sundry other capital articles, and nothing of the kind is to be had in this quarter; in this dilemma, our inventions are exhausted for succedaneums, but we shall go on doing the best we can in hopes of a speedy supply. Dr. Stringer left us some days since in order to lay the situation of the hospital before his excellency General Washington, and endeavor to procure redress."

"Connecticut had a large general military hospital at Stamford, in charge of Doctor Phillip Turner. Many of those wounded in the campaigns in New York, or who became sick from the hardships undergone during them, were sent to the Connecticut hospital for treatment. This State also very early established a convalescent hospital for such of her soldiers as might return to their native State before fully recovering from their wounds or illness. I have been unable to learn much concerning the establishment of any hospitals in New Jersey. After the battles of Brandywine and Red-bank and the numerous minor engagements which took place in Pennsylvania and New Jersey at that time, a general hospital was established at Princeton, New Jersey, of which Doctor James Filton, who subsequently during the war of 1812 was Physician and Surgeon General of the United States army, was in charge. He tells us ⁸ how the promiscuous mixing of a large number of sick with the wounded men in this hospital resulted in an outbreak of jail fever, of which he himself became a victim and only recovered after a severe illness."

In the course of military events in Pennsylvania and the neighboring States the Pennsylvania Hospital in Philadelphia was at various times used for the reception of the sick and wounded of both the British and American armies. According to Morton⁹ the first reference to the Revolutionary War

⁸ Observations on Military Hospitals.

⁹ History of the Pennsylvania Hospital

which occurs in the records of the hospital is on December 5, 1776, when the Committee of Safety placed a number of sick and wounded soldiers in the wards. On January 8th, 1777, a large number of wounded soldiers, sailors, and Hessians were admitted.

When the English forces occupied Philadelphia on September 26th, 1777, their officers took forcible possession of the hospital for the use of their soldiers, and when they evacuated the city they took with them all the blankets, bedding, and instruments, which they could get their hands on, for which the hospital was never repaid.

In 1778 the Americans were again in possession of the city. On July 22nd, of that year, the managers entered into an agreement with Doctor Jonathan Potts, Deputy Director-General, and Doctor Thomas Bond, Assistant Director-General, of the medical department of the continental army, whereby the Elaboratory (afterwards known by the name of the North House, and until torn down in 1896, used as the receiving ward) of the hospital, was turned over to the medical department for use as a pharmacy for the preparation of medicines for the army hospitals.

On September 8th, 1778, the following entry is found on the minutes of the hospital :

"Doctor Bond, Jr., of the Continental Hospitals applied to the Board for admission of a large number of convalescent soldiers, under the direction and management of their physicians and surgeons, to which mode the managers objecting, and upon a free conference, it was proposed to admit from time to time such of them as having passed the usual examination of the attending physicians and sitting managers, may be deemed proper objects; so far as they can be accommodated without prejudice to our own patients, and they being subject to the rules and management established in the house. The soldiers, if admitted, are to be supplied with bedding and provisions, which can be delivered to one steward by their commissaries, their nursing to be paid for as shall hereafter be agreed upon."

It was not always convenient for the managers to receive the large numbers of patients which the military authorities wished them to accommodate. The principles of faith of many of the managers forbade their taking any active part in the contest and there was great reluctance on the part of some of them to even appear in any way to sympathize with those who were in arms against their fellowmen, even in a just cause. Four of the managers; namely, Israel Pemberton, James Pemberton, Thomas Wharton, and Edward Pennington, had undergone exile to Virginia because of their apparent lack of sympathy with the patriot cause.

At a meeting of the board of managers held March 30, 1779, a communication read from J. Melcher requesting accommodation for a number of convalescent soldiers, for whose reception "a reasonable rent" would be paid. The minutes state that "Samuel Rhoades, Edward Pennington, Jos. Swift, and Robt. Strettell Jones were appointed to inform him, that no part of this house can be conveniently spared for the purpose he requires, and that we

had reason given us to expect, when we accommodated the doctors of the Continental Army, with our elabratory, that they would secure us against being further incommoded; and to use such other arguments as may occur to them, to convince him of the inexpediency and impropriety of his request, which if he does not decline, they are to apply to the General, and such others in power as may be proper to preven the soldiers being sent there." However at another meeting, April 1, 1779, Doctor Bond appeared before the board and submitted another request to the same purport, as follows:

"Doctor Bond, Jr., requests the managers of the Pennsylvania Hospital would receive a number of convalescent patients from the general hospital into theirs, as the Battering House is exceeding crowded, and the prescribing surgeons of the military hospitals has pointed their house as the most proper for their purpose; they and Dr. Bond agree that they shall be under the care of Dr. Story as Steward, but that a military surgeon will prescribe to them; that Doctor Bond will be in town, and hereby engages to do everything in his power to restrain the Soldiery, and prevent their committing damages and behaving irregularly, and the said Bond further promises to do all in his power to remove them totally from thence in six weeks. The lower ward and garret only will suffice."

"Which the managers taking into consideration agree to receive such convalescents as having passed the usual examination of the attending physicians and sitting managers may be deemed proper objects, so far as they can be accommodated in the lower ward and long garret, under the care of their own physicians and surgeons, but subject to the rules and government established in the hospital. The soldiers upon admission are to be supplied free of any expense to the Institution, with bedding, provisions, firewood and all other necessities—their victuals to be cooked by some person appointed by Dr. Bond or his agents for that service, in the wash-house, and that a reasonable compensation be allowed for the use of the house. The managers duly considering the trust reposed in them, apprehend they cannot receive patients upon other terms, no persons afflicted with any infectious distemper, can on any account be admitted, and they are rather induced to acquiesce in this proposal from Dr. Bond's engaging 'to do all in his power to remove them in six weeks.'"

On June 16, 1779, "Dr Bond, Jr., waited upon the Board, and returned thanks for the use of the house for the convalescents of the military hospital and expressed his desire of paying for the same. The managers leave it to the doctors' generosity to make such compensation for the benefit, as he may deem adequate."

In July, 1782, Dr. Bond desired to arrange for the admission to the hospital of a number of Continental soldiers, and also a number of British prisoners, who were sick in the gaol. As among the latter there were cases of contagious disease the board refused to admit any suffering from such a disorder. Doctor Bond "insisted that all the sick must be admitted or none." Finally his proposal was absolutely rejected, as follows: "The board having

maturely considered Dr. Bond's proposal are of opinion they are totally inadmissible, being in direct repugnance to the rules of the institution."

In 1783 the hospital again received a large number of sick Continental soldiers as pay patients.

Christopher Marshall, of Philadelphia, a well-known druggist and much respected member of the Society of Friends of that city, until he was cut off by them because of the active part he took as a patriot in the struggle with Great Britain, was appointed by the Council of Safety of Philadelphia to look after the needs of such sick and wounded as might be brought to that city. In his diary kept all that time he has left us many glimpses of his active work in their behalf. The first time any large number of them was brought to Philadelphia was in December, 1776. He provided for most of them in the Bettering House, as the almshouse was then called.

From an entry in his Diary ¹⁰ for January 14, 1777, it would appear that there was occasionally a little friction between the civilians who were engaged in looking after the wants of the sick and wounded, and the medical officers of the army. He writes: "A number of sick soldiers coming in. Visited to-day by Dr. Shippen, Jr., who being chief physician for the army here, proposed the taking of the sick soldiers from the sundry houses in this city, where they are now placed, into the House of Employment to-morrow. This proposal I communicated to the Council of Safety, (who had requested me to take charge of the sick soldiers about a month past,) in order for their determination, but received no answer this evening, as they were very busy.

"On the 17th of January he writes that the council sent "for answer to us that we should proceed in our appointment as before, without paying any regard to Wm. Shippen's notices, etc., upon which we resumed our former care and regard to the sick soldiers and prisoners."

Twice during the Revolution the little Moravian village of Bethlehem, Pennsylvania, was occupied by the sick and wounded of the Continental Army. My information on this subject is practically entirely derived from a most interesting article by Mr. Jordan of the Historical Society of Pennsylvania, which appeared in the *Pennsylvania Magazine of History and Biography*, for July, 1896.

It is to Mr. Jordan that we owe the most graphic description of a Revolutionary army hospital in our possession, and the mass of information he has sifted out so carefully is of inestimable value.

The first occupancy was from December, 1776, to April, 1777, and occurred when Cornwallis after defeating General Washington in the battle of Long Island, had followed up his victory by pursuing him out of New Jersey. There were over one thousand sick and wounded Americans at Morristown, New Jersey, and it was decided that Bethlehem was the most available place of safety for them. The Moravians were a peaceful sect and great was the disturbance amongst them when Doctor Cornelius Baldwin of the

¹⁰ Edited by William Duane, Philadelphia, 1839.

New Jersey line arrived on December 3, 1776, with the following letter from Doctor Warren :

"To the Committee of the town of Bethlehem, or others whom it may concern.

"GENTLEMEN:—According to his excellency, General Washington's orders the General Hospital of the army is removed to Bethlehem, and you will do the greatest act of humanity by immediately providing proper buildings for their reception, the largest and most capacious will be the most convenient. I doubt not, gentlemen, but you will act upon this occasion as becomes men and Christians. Doctor Baldwin, the gentleman who waits upon you with this, is sent upon the business of providing proper accommodations for the sick; begging therefore that you afford him all possible assistance, I am, gentlemen,

Your most obedient humble servant,

JOHN WARREN,

Gen'l. Hospital Surg'n. and P. T. Director."

In the afternoon of the same day Doctor William Shippen and Doctor Warren also arrived and made the necessary arrangements for the reception of 250 sick soldiers.

Doctor Shippen is quoted as saying that all the patients at Morristown had been ordered to Bethlehem, but since "we had shown such a willingness to provide for them, he would now arrange to quarter the greater number at Easton and Allentown."

The sick began arriving at once and in the most pitiable condition, after their long mid-winter journey in rough-riding wagons. Quarter-master and commissary supplies were not at hand for two or three days subsequent to this influx into the town and the Moravians generously provided for the wants of the suffering. The single brethren vacated their quarters in order to give the soldiers room. The Reverend Mr. Ettwein, of the Brotherhood, should always be held in loving remembrance by Americans for the unselfishness and devoted zeal with which he rendered his services to the sick men. He visited all the sick twice a week, bringing them all the comfort he could in their unfortunate condition. Mr. Ettwein records that there were sixty-two deaths in the hospital during the month of December, most of them attributable to the exposure incident on the removal of the general hospital from Morristown. Throughout this occupancy of the town he places the total number of deaths at one hundred and ten.

• In February, 1777, smallpox was brought into the settlement by some soldiers, but the prompt inoculation of forty of the men and some children, saved the place from an epidemic. On the 27th of March, the hospital was ordered transferred to Philadelphia and the order was obeyed as quickly as possible, leaving the gentle Moravians to resume once more their routine, not to say humdrum mode of existence, from which they had been so rudely awakened. There were, however, some among the soldiers too sick to be removed with the rest, among them Colonel Isaac Reed, of the Fourth Vir-

ginia Regiment, who was sent to Philadelphia on June 22nd, 1777, and died in that city a month later, and Doctor John Duffield, who did not leave until July 7th, and is recorded as "the last of the sick attached to the hospital here."

After the battle of Brandywine when it became necessary for the Americans to abandon Philadelphia, the second occupation of Bethlehem as a Continental army hospital occurred. Dr. Shippen sent Doctor Hall Jackson to Bethlehem, where he arrived on Tuesday, September 19, 1777, bearing the following letter to the Rev. Mr. Ettwein:

"My Dear Sir: It gives me pain to be obliged by order of Congress to send my sick and wounded to your peaceable village, but so it is. Your large buildings must be appropriated to their use. We will want room for two thousand at Bethlehem, Easton, Northampton, etc., and you may expect them Saturday or Sunday. I send Dr. Jackson before them, that you may have time to order your affairs in the best manner. These are dreadful times, consequences of unnatural wars. I am truly concerned for your society and wish sincerely this stroke could be averted, but 'tis impossible. I beg Mr. Hasse's assistance. Love and compliments from, my d'r sir,

Your affectionate humble servant,

WILLIAM SHIPPEN, D. G."

Mr. Jordan quotes the Rev. Mr. Ettwein as follows: "Seeing ourselves under the necessity of relieving the distress of the country, we gave orders for the vacation of the Single Brethren's House, and its inmates to be distributed in Nazareth and adjacent settlements. On Saturday we began to realize the extent of the panic that had stricken the inhabitants of the capital, as crowds of civilians as well as men in military life, began to enter the town in the character of fugitives." Among the wounded were Generals Lafayette and Woodford. In a few days the buildings appropriated for hospital use were filled and tents had to be used for those for whom room could not otherwise be found. The army surgeons wished to take for their purposes either the "Sister's" or the "Widow's House," but the Rev. Mr. Ettwein succeeded in having them exempted from seizure.

(TO BE CONTINUED.)

In Philadelphia forty deaths from typhoid fever were recently reported in one week.—*Pennsylvania Medical Journal*.

The Subsidence of the City of San Francisco.—According to the newspapers of San Francisco, that city is sinking into the sea. Surveys made by the city authorities are said to have shown that the average rate of subsidence is two inches a year. The engineers explain the phenomenon by the condition of the ground on which the city is built—sand mixed with decayed vegetable matter extending to a depth of at least sixty feet—and believe that the compression or escape of this soil under the heavy load of buildings which have been placed on it is sufficient to account for the subsidence. Whether the spongy soil settles by compression or escapes into the sea remains to be determined.—*The Sanitarium*.

North Carolina Medical Journal.

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Editorial.

SMALL-POX IN NORTH CAROLINA.

Small-pox prevails at this time in North Carolina to a greater extent than it has in many years. There are as many as fourteen foci of infection, and in some of these the number of cases is almost sufficient to entitle the outbreak to be called epidemic. Year after year the State Board of Health has called attention to the almost criminal lack of vaccination in this State, and urged upon the members of the profession the importance of educating the people in this direction, in the absence of any compulsory laws. Even with such laws it were better that the people be vaccinated voluntarily, and they would, in the large majority of cases, avail themselves of this protection if they were properly advised as to its safety and its benefits. The evil effects of the introduction into the wound of pus or other organisms, with the production of a very sore arm and violent constitutional reaction has the effect of deterring many from being vaccinated, as they would rather wait until the danger of contracting small-pox is right upon them than to undergo the suffering that results in some cases of vaccination.

The producers of vaccine have been using great efforts to avoid contaminating the vaccine with foreign germs, but with the old style of points it has seemed almost impossible to avoid a certain amount of failures. In the tubes of glycerinated lymph, however, the vaccine is as nearly steril as it is possible to render it. As the tubes are hermetically sealed and the virus will thus retain its potency for a much longer period and without the danger of infection, it is probable that these will at once replace the ivory points, being no more expensive. The percentage of successful vaccinations with the

glycerinated lymph is considerably higher than with the points, even of the best makes. There remains, however, the danger of infection from a careless preparation of the arm by the vaccinator, where numerous vaccinations are to be done. Various methods of vaccinating have been suggested, but probably the best is that recommended by Dr. M. B. Hutchins which was published in the *Journal* of July, 20, 1898, and which for the convenience of our readers is reproduced below. With this method and with the glycerinated lymph, we believe that the operation is rendered as free from danger and inconvenience as it is possible to make it.

Dr. Hutchins' method is as follows: The point to be vaccinated is cleansed. A piece of cotton as large as the desired denudation is wet with liquor potassæ and laid on, or a little of the fluid is put on with the bottle stopper. After two or three minutes, or as soon as slight burning is felt—it usually does not burn at all—the cotton is removed, if it was used, and the soap mixture which has formed with the skin secretions is wiped off with a piece of wet cotton, though this is not essential to success, in order to render the next step easier. Then an ink eraser, a toothpick of soft wood, a pencil rubber, a piece of gauze (the quickest) or a piece of damp cotton is used to rub away the the softened epidermis. The friction is slight, the pain is only a little stinging when the sensory nerve filaments become exposed. We obtain, in a few seconds a moist, shining surface, often a clear view of the papillary vessels, but no bleeding. The vaccine is now applied in the usual way.

HYPERPYREXIA.

The taking of a patient's temperature has become so much a matter of necessity with the physicians of to-day, that we sometimes wonder how our forefathers managed to get on without the clinical thermometer. They were doubtless better judges of temperature from the pulse, condition of the skin and general appearance of the patient, to all of which points they paid great attention, than are we who depend entirely upon the thermometer.

Thermometry has been studied in all of its phases, and if in some particulars we have ceased to place the same importance upon it, in matters of prognosis and diagnosis it remains a question of prime necessity for the physicians to study the temperature chart of his cases.

Much interest has always attached to hyperpyrexia, and many of the instances reported of extraordinary rises of temperature have been received with incredulity and more careful examination has sometimes proven that the physician had been imposed upon by his patient. The British "*Medical and Surgical Review of Reviews*" after commenting upon the prevailing skepticism in cases of excessive hyperpyrexia proceeds to quote several instances. The case reported by Mr. John Teale to the Clinical Society of London as long ago as 1875, where a temperature, in a man suffering from spinal injury, of 122° Far. was registered, has often been the subject of comment. In the same society the question of high temperatures has again been

under discussion and "A case of Hyperpyrexia in a Neurotic Woman with Bronchiectasis," was brought before the Society on Nov. 11, by Dr. Newton Pitt. The patient had periodic attacks of dyspnoea with diminution of expectoration lasting for two or three days, when the temperature ran up to 110° or 114° , and was almost always higher in the left than in the right axilla. The rectal temperature was not extreme. For example, the temperature in the right axilla was 102° , in the left 109.7° , and in the mouth 99.4° . Dr. Pitt repudiated the possibility of the temperature having been artificially raised."

It is very difficult to explain a case of this character upon rational grounds and we are not surprised when our English contemporary says that the report of the above record of temperature was received with the usual amount of incredulity by the audience.

NORTH CAROLINA MEDICAL SOCIETY.

The forty-sixth annual meeting of the North Carolina Medical Society will be held in Asheville, beginning on May 30th. The Board of Medical Examiners will meet on Thursday, May 25th, and all applicants for license are urged to present themselves on that day.

The committee of arrangements announce that the society meetings will be held in the ball room at Battery Park Hotel. The railroads will give special rates; tickets will be on sale May 28th to 30th, good until June 14th.

Necrology.

Dr. Wilson S. Temple, of Pasquotank Co., died recently, at the age of 62 years. Dr. Temple graduated from the University of Pa. March 1860. At the breaking out of the war he entered the Confederate Army and filled the position of Hospital Steward, at Wilmington, N. C. At the close of the war he resumed practice and earned a fine reputation.

Dr. A. Holmes, of Clinton, N. C., one of the oldest members of the North Carolina Medical Society, died a few days ago at his home in Clinton.

Drs. Jelks and Holland, editors of the *Hot Springs Medical Journal*, have recently opened the Ozark Sanatorium at Hot Springs, Ark. The institution is fully equipped according to modern ideas and is under competent management.

A few extra copies of this issue of the NORTH CAROLINA MEDICAL JOURNAL are sent to a selected list of physicians who are not subscribers. This issue is a fair sample of the "run of the JOURNAL," but every fourth issue will be larger and devoted to a single subject. We hope you will be pleased with the NORTH CAROLINA MEDICAL JOURNAL, and will place it at once upon your list of journals that merit your subscription.

News and Items.

Influence of the Mind on the Body.—The state of the mind is capable of producing disease; another state of it may effect a cure.—*John Hunter.*

The Prevalence of Cancer:—It is said that in England cancer is responsible for the death of one-twentieth ($\frac{1}{20}$) of all men and one-twelfth ($\frac{1}{12}$) of all women.

Typhoid Fever is prevailing in Newark, N. J. From March 1st to the 18th there were 125 cases reported with 8 deaths. The number of new cases is from 15 to 20 a day.

The Plague in Hong-Kong.—A recrudescence of the bubonic plague is feared in Hong-Kong. During the two weeks ending March 11th there were ten deaths from the disease reported in that city.

Dr. Alexander J. C. Skene has resigned from the presidency of the Long Island College Hospital, with which institution he has been officially connected ever since obtaining his medical degree there in 1863.

Diet in Hyperacidity.—It is not probable that the albuminous diet will be abandoned, but more stress has to be laid upon a milder, less irritating form of administering it.—*Dr. Franz A. R. Jung.*

In Appendicular Abscesses the strangest views of proper treatment obtain. Some men, in their search for a diseased appendix, actually recommend tearing down the protective wall which nature has kindly raised to exclude fatal general peritonitis (Dr. S. C. Graves, "International Journal of Surgery").

Rental of Graves.—The common custom in Porto Rico of renting a plot of ground in the cemetery for a term of years, at the end of which time the remains, which may have been interred, are exhumed, thrown promiscuously in a heap in a corner of the cemetery, and the burial plot again hired out, has been forbidden by General Henry, under severe penalties, as a menace to the general health.—*Boston M. & S. Journal.*

Precautions Against Yellow Fever.—Orders have been issued by the surgeon-general of the Marine Hospital service at Washington to the effect that all troop and other ships from Havana and Cienfuegos arriving at southern ports after March 4th shall be fumigated before being permitted to pass the quarantine lines. On and after March 15th the same regulation will apply to all ships from any point whatsoever in Cuba.

The Board of Medical Examiners of the State of North Carolina will meet in Asheville, N. C., on Thursday, May 25th, 1899. Examinations will be held in the Ball Room of the Swannanoa Hotel, and this hotel will be headquarters for the examining board and applicants. Applicants are urged to be promptly on hand at this time to register and prepare for examination on the following day.

THOS. E. ANDERSON, M. D.,
Sec'y Board, Statesville, N. C.

Improvements at Bellevue Hospital.—An effort is to be made to beautify the grounds at Bellevue by improving the lawns, setting out flower-beds, and making cement walks and gravel paths. A new entrance will be opened on Twenty-eighth Street, the wall will be removed, and a macadamized drive will be extended along the water-front.—*Medical Record*.

Paris Exposition.—Many members of the medical profession will be pleased to learn that if they visit Paris with their families next year for the purpose of seeing the famous exposition there will be an American "pension," intended for their especial benefit, at which straight American will be spoken, and they will have an opportunity of meeting with their fellow countrymen. It will be under the charge of Professor Wisner and his wife, who are well and favorably known to many professional men in New York, Cincinnati, and other American cities. They have taken a mansion in the neighborhood of the Bois de Boulogne, and will have it fitted up in such a way as to provide a comfortable home for their guests. Professor Wisner has already made engagements with a number of prominent doctors who intend staying at his establishment, and he would like to hear from others before he leaves for Paris. For the present he may be addressed at No. 605 Madison Avenue, New York.

Ants in Surgery.—The *Pacific Record of Medicine and Surgery* quotes an interesting article from a Paris journal upon this subject. The process is briefly described as follows :

According to the "Entomologist" the Greek barbers of Smyrna apply the ants in the following manner: The edges of the wound having been approximated with the fingers of the left hand, the ant is held by means of pinchers and brought in contact with the wound, which it soon seizes and pierces through and through with its strong mandibulæ, thus holding the lips of the wound in apposition. The barber then severs the head from the body, leaving the former in place. The same process is employed with a number of ants until the entire wound is sutured. The heads are left in place for 4 days, when, if union has occurred, they are removed.

This method is said to have been used in very ancient times and is mentioned in a French work as recent as 1845. Wounds of the intestines are known to have been sutured in this way.

A Rival of the Famous Crowbar Case.—Barritt (*Lancet*, January 7, 1899) gives the details of a case which fairly rivals the famous instance in which a Vermont quarryman, while tamping home a blast, exploded the same and lost one eye, by reason of the crowbar passing clear through his head, entering below his chin and passing out through the frontal bone. He recovered and lived some years in unimpaired vigor, and his skull now adorns the Warren museum in Boston. Barritt's patient was a lad, aged fourteen, who rammed a muzzle-loading gun with a thirty-inch iron rod. The gun was cocked and had a cap on. The jar brought down the hammer, and the ramrod, which measured $\frac{5}{8}$ inch in diameter at its big end, passed point foremost

into the boy's forehead over his left eye, and out of his left parietal bone. He walked 200 yards to the house, and rode three miles to a hospital. In three weeks his wounds were so far healed that he went home. There was a discharge during convalescence of a thimbleful of bits of gray matter of the brain. The aphasia and partial paralysis of the right arm which followed the accident gradually disappeared.—*Medical News*.

Kipling's Illness.—The following expression of admiration and esteem from the editor of the *Medical News* is, we think, worth fully the space its entire reproduction demands: "For days the English-speaking people of two continents have awaited in almost breathless suspense the issue of the struggle between life and death made by the most popular genius of the end of the century. In the prime of manhood, with all his well-deserved honors falling thick upon him and the promise of a future difficult to fully appreciate, it was sad to think of him stricken down just as he had passed the threshold of his great career. The world has learned to appreciate genius in these days. It is no longer permitted that one should do the great work that is to be honored of posterity in a garret, to express its inspired message amid discouragement and then starve. The thrill of deepest sympathy that has vibrated through Humanity's great heart in two worlds at the prostration of the great young writer whose words have been a revelation to so many is a hopeful sign of the better understanding among men that these latter years are surely bringing with them.

"In the midst of it all the silent, unfailing forces of nature have seemed so heartless and cruel. At a given moment it happens that the material with which is bound up the existence of the beautiful spirit whose emanations have stirred men so deeply becomes a favorable culture-ground for a little plant whose whole sphere of existence is bounded by an infinitesimal portion of almost undifferentiated protoplasm. Implantation takes place, and straight-way natural forces foster the growth of the micro-organism as if it were a favorite child, heartlessly, cruelly, regardless of the fact that that growth is at the expense of material that is informed by one of the brightest spirits to which the world has ever had the privilege of ministering.

"Let us hope that the purpose that runs through all the scheme has ordained the conservation to us poor mortals, for the present at least, of the poetic, truly creative spirit whose subtle magic has cast a spell over us all. We have all admired the magnificent fight he has made for life. As medical men we have been especially touched by the fact that the forces of nature in him unmarred by wanton misuse have reacted for self-preservation in marvelous ways; that a past of pure clean, living has been the basis on which good hopes of recovery could be founded when disease seemed almost inevitably about to triumph. Let us hope the encouraging reports of Mr. Kipling's condition will be followed by others and still more favorable ones, and that he shall be spared to us and to another generation to which in the fulness of his power his words will be even more an inspiration and an illumination than they have been to us. *Ad multos annos.*"

Book Reviews.

Diseases of the Eye.—A Handbook of Ophthalmic Practice for Students and Practitioners, by G. E. DeSchweinitz, A. M., M. D., Professor of Ophthalmology in the Jefferson Medical College; third edition. Handsome royal octavo volume, 700 pages, 256 fine illustrations, 2 chromo-lithographic plates. Cloth, \$4.00; sheep or half morocco, \$5.00 net. W. B. Saunders, 925 Walnut St., Philadelphia, 1899.

The popularity of this work is shown by the rapid exhaustion of the second edition. In this, the third edition, considerable new matter has been added and the greater part of the work thoroughly revised, particularly the articles on "Orbital optic Neuritis," "Hereditary Optic Nerve Atrophy," "Tumors of the Choroid," "Retinitis Carcinomatosa," and the chapter on Operations. Emphasis is placed on the causative relationship which bacteria sustain to many forms of ocular disease. It is well known that the talented author is a careful, tireless student and an indefatigable worker, and he has evidently put his best efforts into his book, which is fully abreast the advance of science and is as complete and thorough as it is possible to make a book of its size. The specialist can read it with profit and the practitioner who wants an authority on the eye, can follow the teachings of this volume in confidence. The author has done his work well; so has the publisher.

What a Young Woman Ought to Know, by Mrs. Mary Wood-Allen, M. D., and Sylvanus Stall, D. D.; being one of the "Self and Sex" series; Vir. Publishing Co., Philadelphia. Cloth, \$1.00. 1899.

The authors, in their preface says: "One of the gravest errors in the education of our girls is the facts that parents and educators have failed to realize that the daughters will be the mothers of the next generation; that in their hands lies in an unlimited measure the power to mould the characters and direct the destinies of the boys and girls of the future. * * * How much has been sacrificed upon the altar of her education is revealed by the waiting rooms of our medical specialists crowded with women in the bondage of suffering." The volume is divided into many chapters, under three headings, the first being, "The Value of Health, and Responsibility in Maintaining It," the second, "Need of Special Knowledge; Some Forms of Avoidable Diseases, Their Remedy and Prevention," and the third, "Love, Heredity, Engagement." The book is well written and if our girls would study it much good would follow. They need the information this book gives.

The Treatment of Skin Cancers By W. S. GORTHEIL, M. D., Professor of Dermatology at the New York School of Clinical Medicine. International Journal of Surgery Co.

The title of this extremely useful brochure is misleading as it would indicate that the treatment of skin cancers comprised its contents, but we find one chapter devoted to The Cause of Cancer, one to Pathology, another to The Forms of Cancer of the Skin and one to Diagnosis. Treatment follows and is accompanied by short reports of cases illustrating the different appearances of skin cancers as seen clinically and indicating the most suitable treatment for each. The author prefers caustic to the knife except when for special reasons the caustic treatment is not applicable, giving preference to arsenious acid. Speaking from large experience he says, "Cutaneous carcinoma, early and vigorously treated by the caustic method, is a very manageable disease, and of good prognosis."

The Principles of Bacteriology, by Dr. Ferdinand Hueppe, professor of Hygiene in the University of Prague. Translated from the German by Dr. E. O. Jordan, Assistant Professor of Bacteriology in the University of Chicago—Open Court Publishing Company, Chicago, \$1.75.

This volume of 465 pages is fresh from the press and is clearly printed on good paper, illustrated with well executed wood cuts. It contains 8 chapters, and we cannot give a better idea of the book than by enumerating these:

Chapter I.—The Structure of Bacteria.

Chapter II.—The Vital Phenomena of Bacteria.

Chapter III.—Brief Descriptions of the Most Pathogenic Bacteria.

Chapter IV.—The Cause of Infectious Disease.

Chapter V.—Can Disease be Cured by Combatting the Cause.

Chapter VI.—Immunity: Protective Inoculation; Curative Inoculation.

Chapter VII.—The Prevention of Infectious Disease by Combatting the Cause.

Chapter VIII.—The History of Bacteriology.

The book is written in language that is clear and forcible exhibiting a strong "under-current" of common sense. The following quotations are given: "Disinfection is successful only when cleanliness is associated with it. Cleanliness is the first and better half of disinfection."

Funny Bone, a book of mirth for Doctors, Druggists, Dentists, Medical Students and others, published by THE FUNNY BONE PUBLISHING CO., St. Louis. Paper covers, Illustrated, 50 cents. Filled with laugh-making jokes.

" 'Bilious' was the common dictum

For the ills of all our youth,
Calomel and big pills down us
Poked the doctors, then, forsooth."

" 'If you want unvarnished truths, sirs,
When a man comes to his death,
And you don't know what killed him,
Say 'he died for want of breath.' "

Medical and Surgical Review of Reviews, London, England. The latest addition to our list of exchanges is the above named magazine, edited by N. E. Boyd, M. D. This publication is on the line of the American *Review of Reviews*, but deals exclusively with medical subjects. Its Editorial Notes are cleverly written on subjects of interests to all medical men and are a valuable and striking feature. The book contains about 130 pages of large, double column matter and is handsome in appearance. Subscription price \$5.00 per annum.

The **Review of Reviews** for April contains a paper by SAM'L. W. BELFORD, late assistant adjutant-general on the staff of General Otis on The Material Problems in the Philippines; The Czar's Peace Conference is the subject of an interesting paper by Edwin Munsell Bliss; Canada's Claims before the Joint High Commission are set forth by Agnes C. Lant.

An Irishman, in order to celebrate the advent of a new era, went out on a little lark. He did not get home until 3 o'clock in the morning, and was barely in the house before a nurse rushed up and, uncovering a bunch of soft goods, showed him triplets. The Irishman looked up at the clock, which said 3, then at the three of a kind in the nurse's arms, and said: "Oi'm not superstitious, but thank hivens that Oi didn't come home at twelve!"

Aunt Abby—I hear that Cinthy Simpkins is sick.

Aunt Kate—Yes, I s'pose she is by this time. There was one of them patent medicine fellows 'round yesterday distributin' advertisements.

Correspondence.

To the Editor of the North Carolina Medical Journal:

SIR:—In your issue of March 5th, page 195, you have taken from the *Virginia Medical Semi-Monthly*, Vol III, No. 9, page 244, some Gynecological Axioms on Uterine displacements by me and then appears a criticism of Axiom 8 to which I must take exception. I will quote Axiom 8 and the criticism thereon to make myself clear.

"8. Never use a sound or repositor for correcting a misplacement or for making a diagnosis. It is unnecessary and dangerous."

My critic adds ("Herein experience does not accord with that of the writer concerning the use of the repositor. The latter's action is upon an anteroposterior axis, similar to that of the uterus; its use is necessary in the replacement of the retroverted uterus, preliminary to the introduction of the pessary.") "A retroverted uterus readily replaced by the finger alone is rarely in need of treatment since it seldom gives rise to severe symptoms. The use of the sound, however, in endeavoring to replace a retroverted uterus is out of the question, since its action must be upon a lateral axis, and thus injury may readily be done."

I take exception to this criticism because the views therein expressed do not coincide with the views held to-day by men who are best qualified by experience to be considered authorities on this subject. We have had to unlearn many things in gynecology because the methods of the earlier teachers in this branch were very crude owing to their limited facilities and immature experience. Evidently my critic has not yet unlearned some of the erroneous teaching that has sprung therefrom.

I have never owned a repositor, though I have been engaged in the practice of gynecology twenty years and in teaching this branch six years in a centre of medical education. A man who is obliged to use a repositor for replacing a retroverted uterus should not practice gynecology. I repeat, it is both unnecessary and unsafe; unnecessary because the uterus when movable and not fixed by adhesions can readily be replaced without it, and unsafe because of the diseased condition of the endometrium associated with posterior displacements of the uterus and the extreme liability of inflicting injury and producing infection which may then cause involvement of the adnexa if it does not already exist. If the repositor is necessary to replace a retroverted uterus how is it to be determined previously that it is not fixed by adhesion? Surely no one would use it intentionally in such condition.

How any one, in this enlightened age, can persuade himself that a posterior displacement of so important an organ as the uterus may be disregarded with impunity until it produces "severe symptoms" is beyond conception, more particularly when it is well known that such malposition seriously interferes with the circulation, nutrition and function of the organ and its adnexa and that fixation with all its attendant evils often results from such neglect.

It is just such teaching as this that fills the consulting rooms of gynecologists.

AUGUSTIN H. GOELET, M. D.

New York, March 20, 1899.

Review of Medical and Surgical Progress.

Points in the Arsenical Caustic Treatment of Cutaneous Cancers.—By William S. Gottheil, M. D.

1. The arsenious acid caustic treatment of skin cancers does not contemplate or depend upon the actual destruction of the new growth by the caustic.

2. The method is based upon the fact that newly formed tissue of all kinds has less resisting power than the normal structure when exposed to an irritation and its consequent inflammation. Hence the former breaks down under an "insult" which the latter successfully resists.

3. If therefore the whole affected area can be subjected to the influence of an irritant of just sufficient strength to cause a reactive inflammation intense enough to destroy the vitality of the new cells, the older normal cells will survive.

4. Arsenious acid of properly mitigated strength is such an agent, and its application causes an inflammation of the required intensity.

5. It therefore exercises a selective influence upon the tissues to which it is applied, and causes the death of the cancer cells in localities outside the apparent limits of the new growth, where there is as yet no evidence of disease.

6. It is superior, in suitable cases, to any method, knife or cautery, which requires the exercise of the surgeons judgment as to the extent to which it is to be carried. That that judgment is often wrong, and necessarily so, is shown by the frequency of recurrence under these methods even in the best hands.

7. It is applicable to all cutaneous carcinomata in which the deeper structures are not involved, and which do not extend far onto the mucous membranes.

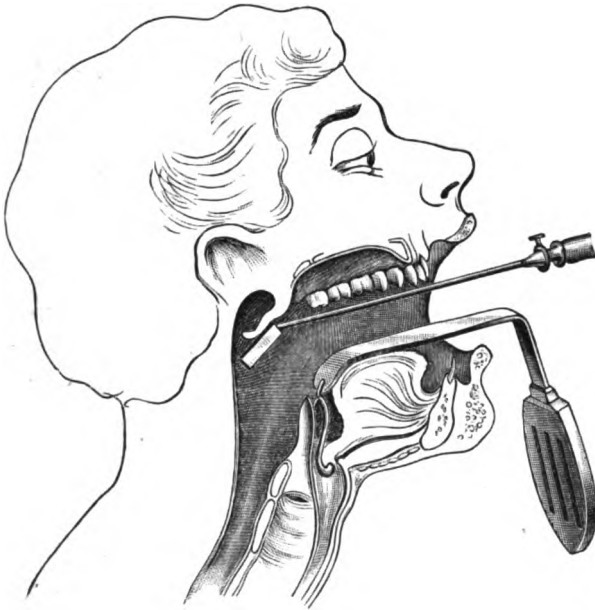
8. It is easy of application; it is safe; it is only moderately painful; and its results compare favorably with those obtained with other methods.

Forced Examination of the Larynx in Children.—It is sometimes extremely desirable to have a chance to make a detailed laryngoscopic examination of young children. One is apt to hesitate, however, to employ general anaesthesia, and parents will object to anaesthetics unless some operative procedure is intended at the same time. Besides, laryngoscopic examination under an anaesthetic is usually unsatisfactory. For a physician who does special work on the throat some method of accomplishing this purpose of satisfactory laryngoscopic examination of children is absolutely necessary.

In the forthcoming number of "*Progressive Medicine*,"* the new quarterly review of current medical progress, Dr. A. D. Blackader, of Montreal,

**Progressive Medicine*. A quarterly digest of new methods, discoveries and improvements in the medical and surgical sciences. Edited by Hobart Amary Hare, M. D. Vol. 1, March, 1899. Lea Brothers & Co., New York and Philadelphia.

will describe two novel methods. The first is Escat's suggestion, and is instrumental. He has devised a peculiar form of tongue depressor, as shown by the accompanying figure. As may be seen in the illustration, the instrument is curved so as to adapt itself exactly to the base of the tongue. On the distal extremity a blunt fork is fixed, of which the two branches descend, one on either side of the epiglottis, ending in two rounded points which, when the instrument is used, are supposed to lodge in the pyriform sinuses on each side of the laryngeal orifice. The instrument serves, therefore, not only



to control the tongue, but to pull forward the rima glottidis from the posterior wall of the pharynx, and so to provide good conditions for the employment of the laryngoscopic mirror. It is probable that on the principles used by Kirstein, in what he calls autoscropy, i. e., laryngeal examination without a mirror, the examiner will be enabled with a little practice, to see a good deal of the larynx (especially its posterior part, which is the more important one) by direct vision, and without the use of the mirror. The method of the manipulations with the new instrument is well illustrated in a diagram presented. In the second diagram the position of the instrument in the throat is well shown. It will, as a rule, be necessary, even with the instrument, to have the movements of the child restrained by a sheet rolled around its arms and legs in the usual way, and to have it carefully held on the knees of an assistant, but with this the examination of the larynx can be made much more satisfactorily than with the ordinary tongue depressor.

A simple method for the examination of young children is also given in the same number of "*Progressive Medicine*," which seems extremely practical and well worth noting. It was demonstrated by Lack, at a meeting of the Laryngological Society of London, about a year ago. The advantage of this second method is that no special instruments are required and no force

is employed. It is described by Dr. Blackader as follows: "The infant is placed in the usual position for laryngoscopy, the index finger of the left hand is passed well into the mouth, and the terminal phalanx hooked around the hyoid bone, which is pulled forward. The rest of the finger acts as a tongue depressor, the knuckle as a gag, while the left thumb under the chin serves to stead the head. With the use of a small mirror the larynx can now be easily seen. The method causes no pain, and requires no anaesthetic, while the younger the infant the less is the resistance and the easier the examination." These manipulations certainly commend themselves by their ease and simplicity, and it would seem that the method deserves thorough trial that its merits may be tested in practical use.

The Effects of Baths.—Dr. James J. Putnam in an interesting paper (*Boston Medical and Surgical Journal*) makes a plea for a more careful study and extended use of hydrotherapeutics. He offers the following conclusions in regard to a few points on which physicians are apt to hold fallacious opinions.

(1) Is a "shock," as from sudden application of cold water, useful or objectionable? The latter view is often maintained, both by patients and physicians, but the former is correct, provided only that the shock is proportioned to the habits, and the capacity for reaction. Patients are apt to dislike the "shock" of cold water, and if they are feeble or nervous it may, if severe, frighten or fatigue them. For this reason, when an unfamiliar method is first used the application should be as warm as 85° to 90°. This will feel cold if the skin has previously been warmed to 100° or higher. On the other hand, the common practice of letting cold water run gradually into a previously hot bath, so that the temperature is slowly lowered and "shock" avoided, is an objectionable one, and much less likely to be followed by a good reaction than a more sudden change, especially if the latter is associated with smart friction, as in the case of the drip-sheet or forcible cold affusion given by another person. It is not easy for a patient to make a thoroughly satisfactory cold application unaided, except by an immersion-bath, since otherwise, at the best, only half the body can be bathed and rubbed at one time. The immersion-bath at low enough temperature to be thoroughly stimulating is very refreshing to vigorous persons who are thoroughly habituated to it, but less safe for feeble persons. If the latter must take their bath unaided, rubbing with a large, dripping-wet towel is perhaps the best method.

(2) Hot baths, at temperatures considerably above that of the body, have primary effects similar to those exerted by cold baths, but secondary reactions are liable to occur, leaving the skin pale and cool and the arterial tone low, and, moreover, the skin is for a time after them abnormally sensitive to slight cold. It is risky, on these accounts, to take hot baths at bedtime, because the primary heat of the skin leads the patient to underestimate the amount of clothing which will be required later and he may wake to find himself chilled. These dangers are diminished if sufficient time is taken to allow of complete

cooling before going to bed, or if the hot bath is followed by a dashing or rubbing with cold water. Of course there are cases, however, where the sedative action of prolonged warm bath is very useful. Massage given during warm baths is very useful for elderly people with arterio-sclerosis.—(Jacobi).

(3) It is a mistake to suppose that shivering is necessarily a sign that the body is becoming chilled to an objectionable degree. Shivering frequently occurs when one rises from bed on a cold morning, and yet wholly disappears, together with the *sense of coldness* that accompanies it, after a plunge into very cold water. Even blueness of the finger-tips is not necessarily a danger sign, since it is usually due to local changes in the cutaneous circulation, and not to weakness of the heart.

(4) Children do not require as low temperature as adults to develop such a degree of reaction as can be expected from them, and do not stand severe cold as well.

(5) Where the reaction on the part of the vasomotor system is to be limited to a small portion of the body, lower temperatures and more prolonged applications can be used than where the whole surface of the body is to be exposed.

(6) Where drip-sheets, or sheet-baths, or wet-packs are to be used, coarse linen sheets or damask table-cloths are better than cotton sheets, as being more absorbent and affording better surfaces for friction.

(7) The mechanical impact of a stream of water delivered under high pressure in the form of a douche adds greatly to the stimulant effect, and insures a better reaction. Nevertheless, a feeble patient has to be accustomed gradually to high pressure, as to low temperatures, and at first relatively short applications are necessary. In a well-appointed institution greater and readier variability, and thus better results, can be obtained than in a private house.

(8) Especial caution is necessary in applying baths, tending to produce much reaction, to elderly persons, or to any persons with brittle arteries or with disease of the heart.

Cerebrospinal Meningitis has prevailed widely in the Southwest during the past winter. Southern Illinois, southeastern Missouri, Arkansas, and northern Texas have suffered especially from the epidemic. Upward of sixty deaths from the disease were reported in St. Louis during the month of February. It has been observed that this dread disease often prevails in epidemic after wars.

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.

Reading Notices.

D. T. HUDGENS, M. D., ELIZABETH, ARK., SAYS: I have used S. H. KENNEDY'S EXTRACT OF PINUS CANADENSIS in leucorrhea with very good results. I have had under my treatment Mrs. S., age 33 years, for leucorrhea, with anteversion of the uterus. I used WHITE EXTRACT per vagina as a local treatment for the leucorrhea, and the treatment was attended with success. I am satisfied that PINUS CANADENSIS should occupy a prominent position in our materia medica.

VIN MARIANI IN EXHAUSTION.—We have had occasion in numerous instances to administer "Vin Mariani" to business and professional men who complained of being gradually run down. The work of the office, the cares and worry entailed by business and the physical flaccidity brought on by overwork, all seemed to give way completely in a marvelously short space of time, despite the fact that the subjects continued uninterruptedly at their usual occupations. The notable fact to be observed is that in each instance the effect was permanent. But it must not be forgotten that, in order to make this result a lasting one, it is necessary to keep the patient upon a prolonged course in the use of "Vin Mariani." There is no doubt whatever that this preparation has proven itself a boon to mankind.—*The St. Louis Medical and Surgical Journal*, March, 1899.

A PHYSICIAN of extensive practice who has devoted many years to the study of respiratory troubles writes that he believes he has found the most reliable treatment yet devised for obstinate bronchitis :

"My sister Mrs. M. had been under treatment during ten years for chronic bronchitis without definite improvement. She was extremely weak and emaciated and had frequent paroxysms of coughing with copious opaque yellowish expectoration streaked with blood. There was pronounced Angina with a sense of weight and tightness across the chest. About six weeks ago I began administering a petroleum emulsion made by the Angier Chemical Company, of Boston, in teaspoonful doses mixed with two ounces of milk. In three days the cough entirely vanished and the pulse became full and regular. In six weeks she has gained eighteen pounds and declares herself cured. This is only one case among many."

"THE TWO ARMIES."

[BY OLIVER WENDELL HOLMES, M. D.]

"As life's unending column pours,
Two marshalled hosts are seen:
Two armies on the trampled shores
That death flows back between.

"One marches to the drum-beat's roll,
The wide-mouthed clarions' bray,
And bears upon a crimson scroll,
'Our glory is to slay.'

"One moves in silence by the streams,
With sad, yet watchful eyes,
Calm as the patient planet's gleam
That walks the clouded skies.

"Along its front no sabres shine,
No blood-red pennons wave;
Its banner bears the single line,
'Our duty is to save.'"

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

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CHARLOTTE, APRIL 20, 1899.

No. 8

Original Communications.

The Disorders of Digestion.

By JOHN N. UPSHUR, M. D., Richmond, Va.,

Professor of the Practice of Medicine in the Medical College of Virginia, etc.

ONE of the results of the advance in modern internal medicine, is not only a deeper and more accurate insight into disease in general, but in no direction has more been accomplished than in the disturbances of the digestive tract, affecting nutrition, arising as they do, not only within the particular viscus, stomach or intestine, involved, but due oftentimes to remote causes, and we now recognize the fact that the old term dyspepsia, not only means difficult digestion in a general way, but in no way describes, except vaguely and unsatisfactorily, what the difficulty is.

An improved knowledge of pathology has resulted in a therapy better adapted to the true nature of the disorder, and the remedy, whether dietetic, medicinal or mechanical, is so adjusted to meet the indications, that many cases which originally formed only targets for shrewd guessing, now respond to scientific treatment, and marked improvement and often cure, rewards our efforts, making life tolerable, when before it had been only a burthen to the sufferer, and the case an "*approbrinm medicanum*" to the Doctor. The process of digestion to be normal must be *rapid, painless and complete*, when the process is impaired, it is a common experience to find at least more than one of these requirements lacking. Of the conditions present, interfering with the healthful function of digestion, a sound etiology to explain the symptoms must be sought. It may find its inception in the debility following an attack of some acute disease—returning appetite during convalescence tempting the patient into imprudence in diet, resulting in injury to the viscus more or less permanent. Over taxed digestion, at other times by excess in eating or drinking, or food over stimulating and irritant in itself, being the beginning of an acute gastric catarrh, subsequently becoming chronic—or beginning as a chronic catarrh—all of the conditions in the stomach and duodenum being favorable to the elaboration of an imperfect or incomplete

secretion of the digestive fluids, or the mucous acting as a ferment, starts the process in the ingesta, and hinders the progress of digestion, or stops it entirely before the process is complete. The gas evolved produces a sense of oppression, weight or distension in the epigastrium, amounting frequently to actual pain, attended by eructations of gas, more or less foul, tongue coated, and bad taste in the mouth. Again the ingestion of food is followed by pain more or less promptly, according to the impairment of function in stomach or duodenum. Pain, however, may not be due simply to functional disturbance, or a simple hyperæsthetic condition of the mucous membrane—*ulcer* may exist—being either a consequence of chronic gastric catarrh, or causative of it, as the result of hyperchloridia, or an embolic condition of the capillary vessels of the stomach in the locality in which the solution of continuity takes place—or due to mechanical injury or poison. Now the fact must be borne in mind that pain does not always exist, when ulcer is present there may be only digestive disturbance, hemorrhage following the ingestion of food especially of hot articles of diet, or the burning spot behind the inferior extremity of the sternum, and its opposite point in the spine. Hemorrhage is the most constant symptom of ulcer, the blood bright red, spit up usually unchanged, though sometimes vomited, and constantly excited by partaking of solid food. It is too, persistent and not readily responsive to appropriate remedies. *Cancer* may be the explanation of pain, nausea and vomiting of blood, coffee grounds in character, and mixed with partially digested food being the characteristic manifestation, palpation detecting the presence of tumor. The patient may complain of *excessive acidity*, the true nature of which is to be determined by the test meal—remembering always that excess of hydrochloric acid exists in ulcer and lactic acid in cancer. The greater resistance to relief, if it be a condition of hyperchloridia. Furthermore the digestive disturbance may be due simply to a too slow peristalsis—the result of muscular debility—simple and pure, or back of this may be a condition of innervation, having its starting point in a general neurasthenia. It makes little difference here as to quality of food, the motive power of the machine is crippled, and the practical fact in the therapy is the indication for a general and efficient upbuilding of the whole system and not a therapy expending itself on the stomach as the chief objective point of attack—and fundamental and essential to this is *rest, absolute and complete*, rest from the tension of business strain, or professional worry, without this the result of treatment can be only transient, or absolutely futile. Not an uncommon cause of digestive disturbance is an imperfect performance of the *process of mastication*—either because of too great haste in eating, when the food, half chewed and insalivated, is crowded on the stomach, or the loss of the teeth which prevents mastication of the food at all, and the bolus arrives in the stomach in condition totally unprepared for the second step in the process of digestion; not only is an unprepared mass found in the stomach, but as a consequence of the difficulty, slow peristalsis results from fatigue to the muscular coat in an effort to carry a burthen beyond its capacity, thus favorably predisposing to

incomplete solution of food, and the development of the process of acid fermentation, with its attendant discomfort of weight, distension, and acid eructation. Valvular heart lesion, with insufficient venous return, is commonly the cause of obstinate gastric catarrh; in renal lesion, when the kidney fails to eliminate the effete material that should go off by that channel, the stomach, by the medium of its mucous membrane performs a vicarious office for the kidney and digestive disturbance results marked by the development of gastric catarrh, obstinate and distressing nausea, or vomiting, coated tongue, foul breath, etc. The digestive disturbance *may depend upon* a condition of uricacidæmia, finding its initiative in a lithæmic diathesis, and errors in diet from a lithæmia standpoint, and requiring a rational therapy, both dietetic and medicinal to correct the excess of uric acid retained in the system—or to modify the conditions from a nervous standpoint, which interfering with metabolism, have largely contributed to its development. As the result of chronic gastric catarrh, lymph elaborated between the muscular and mucous coats, organizes, contracts, presses upon the peptic glands, resulting in their permanent destruction—true gastric cirrhosis. Or, excessive eating, distending the stomach, or constant distension from flatulence, producing distension or dilatation of the stomach (gastrectasis) impairing the peristaltic power of the stomach, and distressing disturbance of digestion, indicated by a sense of a load in the epigastrium, pasty taste in the mouth, fœtid eructations, etc., results from a condition of organic change, which at best is scarcely curable, and only palliative. Sacculation of the stomach may result from cicatricial contraction from the healing of gastric ulcer. Into these pockets the ingesta falls, and its digestion being imperfect, it becomes a source of fermentative change. The interference with duodenal digestion brings most distressing symptoms—digestive disturbance in the duodenum, is due to a more complicated condition than in stomachic digestion. This is because more fluids enter into solution and assimilation at this point, any impairment of bile, pancreatic fluid or intestinal juice, contributing to digestive disorder. Imperfect stomachic digestion may be the cause—when duodenal digestion is not going on—the normal condition of the viscus is acid. So soon as digestion of fats, sugars and starches begins it becomes alkaline. If acid fermentation takes place in the stomach, the food in solution, *too acid*, passing into the duodenum, neutralizes its alkaline state makes *it* acid, fermentation takes place, diarrhœa results. This form of dyspepsia, is indicated by *pain, coming on two hours* or more after eating, and located in the left lower epigastric region, or left hypochondrium. The fact as to whether the cause of intestinal indigestion is located in the duodenum or due to stomachic acid fermentation is *important*, as its bearing on therapy is essential to complete relief.

Thus I have endeavored to show how the term dyspepsia is a misnomer, and how much of the ordinary treatment of the disorders of digestion, is *treatment of a name* not the skilled therapeutic management of the forms of disorder giving rise to the suffering. Empirical medication, with diges-

tive ferments, quinine, strychnine, and the *last fad*, advertized by the manufacturing chemist, in good faith, but in ignorance of physiological facts and pathologic conditions, the average doctor tries with varying success, and more or less harm to the patient and less of reputation to himself. Perhaps no agent has had a wider administration than pepsin in its various forms, liquid and solid, or had a wider reputation for good, and all of us give it. But in combination with agents, we know to be potent, always, dilute muriatic acid, strychnia, etc., the pepsin generally getting credit it does not deserve. I very much question if *any of the digestive ferments are worth anything*; certainly in the doses exhibited, we have no guarantee, that because solution of food elements takes place in a test tube, the same will be true in the stomach. For a moment consider the size of the stomach and the bulk of ingesta in it after a meal, the size of the dose of digestive ferment, a $\frac{1}{3}$, or four or five grains, and to believe in its agency in promoting digestion seems absurd. Consider also *any* of the diseased conditions I have discussed, and say how digestive ferments can stop acid fermentation from too slow peristalsis, lack of nervous tone, catarrhal conditions, dilated stomach, ulcer, etc. And what is true of the stomach, is true of the duodenum also.

I plead for more careful and systematic study of these disorders, the striving for accurate diagnosis—and a rational therapy. That *men* stop guessing, as quixotic and irrational as tilting at a windmill. It will stop the sneers from the patients at the inefficiency of the doctor, and be the most fatal blow at quackery, patent nostrums, etc. *Medicine is competent* to deal with these disorders and effect a cure in many of them, the fault lies in lack of care in investigation, and a superficial knowledge of the disorders sought to be relieved. Earnest endeavor to attain a full mastery of the subject will bring its owner a rich reward.

210 W. Grace St.

Chronic Diarrhœa.

By ROBT. L. PAYNE, M. D., Norfolk, Va.

Visiting Surgeon St. Vincent's Hospital, ex-Member Board Medical Examiners of North Carolina, ex-President North Carolina Medical Society, etc.

CHRONIC diarrhœa is a term very loosely used by the profession to designate a state of affairs which is merely symptomatic of many widely different and complex conditions.

The conditions upon which chronic diarrhœa depends are always relieved with difficulty and, for the reason that so many physicians not only speak of the symptom but actually treat chronic diarrhœa as a disease entity, with no regard to ultimate causes, its cure has become the approbrium of medicine. Let us briefly consider them, the varying conditions which must be differentiated when one is called upon to treat such patients.

Paradoxical as it may seem chronic diarrhœa may be the result of conservative action on the part of nature and under such conditions should not

be interfered with. This is notably so in cases of nephritis in which the diarrhœa is due to the elimination of urea by the bowels in nature's effort to supplement the action of the kidneys. This is also true in cases of cirrhosis of the liver in which the diarrhœa is often but one of nature's efforts to prevent dropsical effusions and in both these conditions the cause being understood, the physician will not dare interfere with the conservative efforts of nature.

Again, chronic diarrhœa may have a reflex origin and no amount of medicine addressed to the symptom diarrhœa will cure the disease until the reflex source is recognized and relieved. This is not infrequently the case in fissure of the anus, in which by reflex influences peristalsis is hastened, the food being so hurried through the intestines that digestion and assimilation are seriously impaired, and this cause of diarrhœa is very worthy of note because we are apt to regard constipation as an absolute rule in cases of fissure of the anus and further the lenteric discharges are apt to lead to the supposition that intestinal indigestion is the primary cause of the symptom.

Again let us notice, chronic diarrhœa is often a product of purely nervous influences which cause profuse serous osmosis into the intestinal tract and hence diarrhœa. A number of such cases of an acute character have come under my notice, notably in young physicians coming up for the license examination, and I have seen many cases of chronic type developed and continued by nervous strain and overwork associated with anxiety.

Diarrhœa of such frequent occurrence as to be often called chronic diarrhœa is often associated with the gouty diathesis in which there is often frequent alternation of constipation with diarrhœa, and here, of course, the only proper method of treatment is to relieve the existing lithæmia.

In dilatation of the stomach, though constipation is the rule, cases occur in which very frequent attacks of diarrhœa are brought on by the discharge of fermenting material into the intestines and so this cause must not be overlooked in cases of diarrhœa occurring at intervals of a few days.

In cancer of the intestines constipation usually alternates with short attacks of diarrhœa, but if the lesion be seated low in the colon, as in the sigmoid flexure there are apt to occur frequent, thin discharges from the bowels. The presence of tumor and the peculiar cachexia will serve to distinguish these cases.

In that peculiar disease, lardacious degeneration of the intestines, diarrhœa is a constant feature and in such conditions is incurable, owing to the hopeless degeneration of which it is a symptom.

Purging may be a symptom of tuberculosis of the mesenteric glands, and this condition should always be sought for in the chronic diarrhœa of childhood, or when this symptom is associated with other evidences of tuberculosis. These are among the rarer causes of chronic diarrhœa and should never be overlooked in the study of these cases but in the great majority of cases chronic diarrhœa has for its immediate cause either intestinal indigestion or chronic intestinal catarrh. This fact would seem at first glance to

simplify very greatly the study of these cases but when we recall the varying causes of these two conditions we can readily see why chronic diarrhœa is so difficult to cure.

Intestinal indigestion is almost protean in its origin. It may result from conditions of the stomach characterized by hyperacidity in which so much acid is discharged into the duodenum that the alkalinity of the bile is destroyed, hence the ferments upon which intestinal digestion depends cannot act. On the other hand it may be the result of certain diseases of the liver and bile ducts in which bile is not poured into the intestines in quantity sufficient to neutralize the normal acidity of the chyme and for this reason the digestive ferments are rendered inert. Intestinal indigestion may be due to simple torpor of the bowels, normal peristalsis being inhibited for any reason the food is delayed in its progress through the intestines and hence is not acted upon by the different digestive ferments. When we recall then how nearly related the process of digestion in the intestines is to putrid decomposition of food and how under the slightest provocation such decomposition with the formation of foul gasses and poisonous ptomaines occurs, we can readily understand how important a factor a delayed peristalsis is in the production of intestinal indigestion. Again, intestinal indigestion is the direct result of all diseases of the pancreas in which the secretions of this organ are in any way impaired or interfered with. In obstruction of its duct by neoplasms or otherwise, in catarrh of its duct; in acute pancreatitis and in malignant degeneration of this gland, the leading symptoms are generally those of intestinal indigestion. There is a fairly prevalent idea in the profession that in diseases of the pancreas destructive in character fatty diarrhœa or the appearance of fat in the urine necessarily follows, but while this is frequently so it is not necessarily so, and it is of the greatest importance to note that in diseases of this organ there may be a faulty secretion of any one of the important ferments, trypsin, amyllopsin, or steapsin, giving rise to imperfect digestion of the different classes of food, and this fact is of great importance in the treatment of intestinal indigestion. Finally let us notice that intestinal indigestion is the most frequent cause of chronic intestinal catarrh. Now turning our attention to chronic intestinal catarrh, the most common of all the causes of chronic diarrhœa, we find this too is the result of widely different pathological conditions.

Improper food, the excessive use of condiments and alcohol; the presence in the bowels of foreign bodies, especially fæcal concretions, the result of neglected constipation; all chronic lesions of the bowels, such as neoplasms of its walls, tubercular or syphilitic ulcers, etc., and neglected acute catarrh are causes of chronic intestinal catarrh. But again diseases of the heart, lungs or liver may produce intestinal catarrh by causing obstruction of the portal circulation, hence venous stasis in the mucous membrane of the intestines, and no matter how the catarrhal process is produced, chronic diarrhœa is its leading symptom.

It is also worthy of note that in all cases of chronic catarrh, intestinal indigestion is soon developed and is one of the most troublesome of all its complications. We see, therefore, that although in the majority of cases we may determine chronic diarrhœa to be due to the existence of intestinal indigestion or chronic intestinal catarrh, one or both, these in turn are due to so great a variety of pathological conditions that it is often impossible to get back to ultimate causes and hence much of the difficulty which must always attend the treatment of these cases.

How then shall we treat a symptom whose causative relation is so exceedingly widespread? It goes without saying, remove the cause, and he will be the most successful who is most careful in differentiating the different etiological factors. A careful study of all the habits of life of the patient and of all reflex causes must be made of the whole history of the case studied in every detail. A physical examination of heart, lungs, liver, pancreas, stomach, kidneys and finally of the intestines must be made.

All ultimate causes must be investigated and so far as possible removed or if that be impossible alleviated, so far as may be before we can have any hope of cure, but apart from this much relief may be had from direct treatment of the symptom diarrhœa. All sources of care and care must be removed and the patient be encouraged to lead a regular, abstemious life. Exercise should be taken in great moderation at all times, and often it is best to keep the patient for a time absolutely quiet in bed.

The various excretory glands must be carefully watched and their functional activity promoted. Especially must the skin be kept in good condition by daily sponge baths followed by massage. Great attention must be paid to the thorough mastication of the food which must be eaten very slowly and it is better to take small meals at intervals of a few hours than full meals at the regular hours for eating prevalent in everyday life. After eating a period of absolute rest should be enjoined.

The diet should be very carefully regulated and to this end the careful physician will make frequent, thorough examinations of the stools and in many cases it will be best to do this with the microscope. As before said at different times and under varying conditions the pancreatic ferments, trypsin, amyllopsin, etc., may be secreted in varying amounts and so, at times, even when such a state of affairs cannot be determined by the naked eye, under the microscope starch granules, muscular fibre and imperfectly emulsified fat globules may be seen and thus much light be thrown upon the class of food to be eliminated from the dietary.

As a rule it will be better to give lean meat than bread. Cold roast mutton, the white meat of fowl roasted or smothered, scraped beef, raw oysters and the animal broths are usually to be allowed. Generally no starchy food should be allowed except bread which should be given sparingly and then only in the form of stale, risen bread, toasted dry. The greatest care must be exercised as to the quality of the bread remembering that the fermentation of the yeast is often very imperfectly completed in the bread-making

ing and that in this way the tendency to fermentation in the stomach may be constantly encouraged. Milk forms an important article of diet but is best sterilized and peptonised and should be sipped slowly and never swallowed rapidly.

As to the medical treatment of chronic diarrhoea, apart from such treatment as is addressed to diseases of distant organs bearing causative relations, I have long found that the vast majority of cases are most benefitted by remedies used to promote stomachic and intestinal digestion, to the prevention of fermentation in the stomach and bowels and to direct medication of the catarrhal process nearly always present, by enteroclysis. It is necessary to facilitate stomachic digestion in order that the food may be as perfectly prepared for intestinal digestion as possible before it passes from the stomach and it is of especial importance to prevent any undue acidity of the stomach lest the chyme be so acid as to more than everbalance the alkalinity of the bile and thus absolutely inhibit the action of the intestinal ferments. To this end pepsin, the mineral acids and the alkalies if properly administered, and the bitter tonics may at times be called into use. After determining if possible, which one of the pancreatic ferments is lacking by the microscopic examination of the stools, we may attempt to supply the want by the administration of these ferments as they are now supplied in the shops though I must confess I have had little success with them and am generally forced to withdraw from the dietary the class of foods which I find is not being digested. As to the artificial digestive agents papoid, caroid etc., I have found little benefit from their use.

The maltine preparations have at times been very useful and from Taka-Diastase I have very generally found great relief when there was indigestion of starch.

To prevent intestinal fermentation various antiseptic drugs may be useful, charcoal and B-naphthol being among the best, but the remedy I have come to rely on chiefly is creosote. This is given in gradually increasing doses. Much as the remedy is employed in phthisis and after using it in very many cases I believe if I were limited to the use of any one remedy in the treatment of chronic diarrhoea I would not hesitate to choose creosote. Under its use fermentation is arrested, the patient ceases to be troubled with gaseous distention, the appetite is improved, the digestion is facilitated, the number of stools is reduced and even in the most hopeless cases the general condition of the patient is as a rule, materially improved.

Next in importance is the systematic employment of enteroclysis.

For this purpose sterile water, normal salt solution or water medicated with creolin or with tannic acid or nitrate of silver may be used, but what I have found most useful of all is a solution of alum, one drachmn to the quart of water, administered by a fountain syringe at low pressure and if possible through a rectal tube. (In a few cases this solution excites tenesmus and the quantity must be reduced.) The patient should lie upon his left side with the hips elevated and the head low, or he may assume the knee breast pos-

ture ; the syringe must be only slightly elevated so that the water passes very slowly into the bowel and as much of the solution as possible (usually two or more quarts) is used. This should be repeated once or twice daily. The effect is often marvellous. I have often seen patients who had been reduced to extremis by frequent alvine discharges have the number of stools quickly reduced to one or two daily and rapidly regain much of flesh and strength.

As to the class of remedies usually administered in these cases, the opiates and the mineral and astringent drugs I have little to say in commendation. Each year I resort to them less frequently. Sometimes pain may be so great as to call for the use of an opiate but usually this is prevented by the use of the antiferments thus preventing distension of the bowels with foul gases.

The catarrhal process in the bowels is at times much benefitted by large doses of bismuth subnitrate or subgallate, by small doses of sulphate of copper or nitrate of silver. The vegetable astringents I have rarely seen do any real good and great circumspection is necessary in the use of all opiate or astringent remedies less any good they may possibly accomplish be more than counterbalanced by loss of appetite, impaired nerve tone and increased digestive disturbance.

300 Freemason St. April 10th, 1899.

The Treatment of Certain Summer Diarrheas of Infancy.

BY ALFRED STENGEL, M. D.

Instructor in Clin. Med. University of Pennsylvania; Physician to the Children's Hospital, Philadelphia.

A CLASS of cases frequently met with in the summer, particularly in large cities, but also in country districts, has impressed itself strongly upon my mind as one in which prompt and vigorous medical treatment may be expected to yield most brilliant results. My experience with these cases in private practice and in the Children's Hospital has convinced me of the great efficacy of treatment. In private practice the disease has proved to be tractable, and as a rule easily controlled ; in hospital practice it unfortunately contributes very greatly to our summer mortality. The reason for this difference is that in private practice, treatment is begun earlier and is prosecuted with a degree of vigor that is rarely given to the hospital cases prior to their entrance into the institution where we so often find them at our first visit in a moribund condition.

The kind of cases to which I am alluding is one which, for want of better classification, must be included under the head of enterocolitis. The cases are usually sudden in onset, marked by some regurgitation of food, high temperature, copious brownish, then greenish, and finally often watery stools, and by rapidly developing signs of collapse. At the latter stage, the Hippocratic facies are observed, the external temperature falls, while the rectal and other internal temperatures remain greatly elevated. The child moans or

lies entirely still with up-turned eyes, occasionally giving a sharp meningitic cry. I say these cases are classified, for want of better description, as enterocolitis. The essential basis of classification, however, is not to be found in the extent, character, or apparent seriousness of the intestinal lesion, the elements of real importance in infantile diarrheas of this type being the amount of general intoxication or infection of the system, the degree of elevation of temperature and the constitutional reaction consequent upon it, and the depletion of the system and the desiccation of the tissues resulting from the continued discharges. The pathologist discovers no striking differences in the bowel in cases that have presented a clinical history indicative of such intense general disturbance of the system and other cases in which the manifestations has been mild and the progress of the case are steadily toward rapid recovery. It is evident, therefore, that the basis of classification is not to be found in the lesions of the mucous membrane, but rather in the general condition of the system or the form of infection or intoxication, conditions, however, which in the present state of our knowledge are not readily ascertainable or to be estimated by our means of chemical or microscopical investigation.

It follows from these thoughts that the treatment of cases of gastro-enteritis of childhood must be based upon the recognition of the elements involved, and therapeutic measures which are simply concerned with the amelioration or cure of local irritation, will fail of their purpose. The kind of cases that we are dealing with require treatment directed to the relief of the conditions already discussed, viz., infection and intoxication, high temperature, dessication, and collapse. Unfortunately, we have no direct means of combating the infection in these cases, but from certain clinical experiences, it seems to me that this is the least necessary of the three elements of treatment, since cases are constantly met with in which relief of high temperature is followed by immediate general improvement. The conclusion must be obvious that in such instances general infection does not exist to any serious extent.

The relief of the temperature is by far the most important, for it is the high temperature which leads to general depression and eventually to collapse, and by the control of the temperature we control or prevent collapse. Some believe that diarrheas of the sort we are considering are the result of general high temperature, as a sort of thermic fever in fact. This view is not thoroughly established but it is undoubtedly true that the high fever increases the existing disturbance of the bowels. The means that suggest themselves for the management of the temperature are various, but of all, I have found the local use of water by flushing of the colon and the external use of tepid baths as the most advantageous. Antipyretic remedies are worse than useless, for though they control the temperature in some cases, they have invariably, in my experience, led to increased systemic depression. Flushing of the colon with tepid water, on the other hand, is followed by prompt and satisfactory reduction of the temperature, and there usually

accompanies this improvement in the general condition of the patient. I would cite the following case as one illustrative of the beneficial results obtainable in this way.

I was called about 11 p. m. to a hotel in the lower part of the city one very hot night in September to see the child of Mrs. A., the wife of an actor. The history was as follows: Mr. A. had been traveling with his company in the West, and was ordered to proceed to New York to begin the fall rehearsals. In Chicago, where they stayed for 24 hours, the day was excessively hot, and their child, a well nourished babe 14 months old, bottle fed, developed a sudden diarrhea. At first, according to the description of the mother, the movements were simply undigested milk with some mucus. Very soon, however, they became greenish and more liquid. As all arrangements had been made for the journey to New York, the father and mother determined to take the child notwithstanding its illness, and they reached Pittsburg 36 hours after the trouble had begun. At this point, the symptoms became even more alarming, and the child sank almost into collapse. It was revived, however, by stimulants, and the parents brought it to Philadelphia during the next day, arriving here late at night, when I saw it within an hour. The infant was in a deplorable condition. The skin was cyanotic, the fingers clenched over the thumb, the expression of the face was one of pain and great depression, the eyes were turned upward and were partly open exposing the sclera, the extremities were cold, but the rectal temperature was 104° . The mother stated that the child had had several attacks of vomiting, and that the green diarrhea had continued. At first sight it seemed to me scarcely necessary to undertake any treatment; the appearance being that of a child in the last minutes of life. But despite this feeling I sent for a catheter and with the use of a foantain syringe at once flushed the colon introducing the catheter 12 inches into the bowel, and allowing two quarts of water at a temperature of about 85° to 90° to flow in, and then by detaching the catheter to discharge again through this tube. The effect was almost instantaneous. The color of the child changed utterly, the cyanosis disappearing visibly and the general strength increasing noticeably. The eyes closed, the child fell into a tranquil sleep, and upon awakening an hour later took a little nourishment which it retained. The temperature was taken soon after the irrigation, and it was found to have fallen to 100° . It continued to decrease under repeated flushing and in the course of 48 hours, reached the normal where it stayed. The improvement in other respects was equally steady and progressive.

The effect of treatment was unusually brilliant in this case, but I have seen others equally so, and very many cases in which treatment was highly satisfactory, though perhaps less striking than in this instance. In the practical performance of the act of douching, I find it advisable to insert the tube, which is a large sized catheter, high up into the bowel. In the early stages of the case, this can be done with great ease; though exceptionally in the early stages, and rather more frequently later on in the case, the mucous mem-

brane of the lower bowel becomes so irritable that great resistance is offered, and the tube cannot be inserted high up without the use of unjustifiable force. In such cases too, the liquid introduced is quickly discharged, and the flushing is not properly accomplished. The temperature of the water should be from 100° to 80° , according to the nature of the case and the elevation of the temperature. When the strength of the patient is not too greatly impaired and the temperature is high, flushing with water at 80° may be permissible, but in weakly children a higher temperature is more desirable. As to the frequency of the administration of the douches and the amount of water to be used no general rule can be applied. In cases of moderate severity, one thorough douche daily, using a quart or two quarts of water, is sufficient. In cases of greater urgency two or even three douches per day may be advisable, if the strength of the child permits such frequent interference. The good effects of douching of the bowel are the result of the reduction of temperature secured by the cool water, the removal of irritant matters from the bowel, and the supply of liquid to the blood to make up for the quantities lost. In this way high fever and its consequences are obviated, local irritation is allayed, and dessication of the tissues prevented.

The external use of water is distinctly secondary in importance, and is only useful in the milder cases and in the early stages of the affection under consideration, because it is in these forms and in this stage that the external temperature is high. In the later stages when collapse begins to threaten, external cold is manifestly improper, and hot packs to the extremities or hot flannels wrapped about the patient are more appropriate.

In some cases I have used baths of a stimulating sort with advantage. Such a bath may be prepared by adding to the usual quantity of cool water in a child's bath tub a fluid ounce or two of spirits of camphor. The effect is decidedly more stimulating than that of a simple bath of water. Possibly the alcohol alone accounts for this, but my own feeling has always been that the camphor itself contributed to the result. A cool or tepid camphor pack may be substituted for the bath. My own method has been to envelop the child in flannel cloths saturated with luke warm water, and sprinkled with spirits of camphor. Cool bathes may be used rather more freely than colonic douches but may not be employed without due regard to the child's strength.

With regard to medication, I have found opium in exceedingly small doses in the earliest stages advisable. It is useful because it allays the irritation of the nervous system and averts the intense depression which is occasioned in a reflex manner by the intestinal irritation. From what has been previously said, it must be evident that in these cases the constitutional symptoms are largely the result of reflex disturbances set on foot by the intestinal irritants whatever their nature may be, and drugs which are capable of quieting the nervous centres sufficiently to allay this reflex disturbance, without so obtunding the sensorium as to lead to greater depression in the end, are useful. Opium is by far the best remedy for this purpose.

It must be clearly understood, however, that it is not intended to relieve pains or to check diarrhea. In the earlier stages of the disease, it is highly desirable that diarrhea should continue, for nature in this way eliminates the poison, and pain is not an important symptom. Several methods of administration of the opium are useful. In cases in which the colonic douches are used I have sometimes added a drop or two of tincture of opium to the water. In other cases I have used powdered opium with subgallate or subcarbonate of bismuth in combination like the following:

- ℞ Bismuth subgallat, gr. xxiv. or gr. xxxvi.
 Pulv. opii, gr. ½.
 Pepsini, pulv., gr. vi. or gr. xii.
 Tr. in pulv, no. xii.
 Sig. one every four hours alternating with the following :
- ℞ Hydrag. chlorid. mitis, gr. ½.
 Cerii oxalat, gr. ii.
 Sacch. alb., q. s.
 Tr. in pulv., no. xii.
 Sig. one every four hours.

Astringent remedies are rarely useful in cases of the kind under discussion.

Stimulant such as aromatic spirits of ammonia or brandy in doses of five to ten drops, and tincture of nux vomica in doses of one or two drops may be useful when the general condition demands support of this kind.

As to diet I cannot now enter into detail, but in general would outline this part of the treatment in the following way: In the earliest stages of the disease when vomiting is still a prominent feature, food may be withheld for 24 hours during which time vigorous treatment may secure control of the disease. If however the nutrition of the child does not seem to warrant this, barley water, rice water, beer juice or egg water made by dissolving the white of one egg in a half pint of water may be given. Later milk must be the principal part of the dietary. It should be well diluted, pasteurized, and sometimes it is necessary that it be predigested.

Tetany Complicating Gastro-Intestinal Catarrh.*

By J. A. FAISON, M. D., Bennettsville, S. C.

A CHILD three years, six months, and fifteen days came under my observation in 1893. The history of the case is as follows:

Landis G., the little son of Dr. Mc. T. Tatum, of Mt. Olive, N. C., was born March 26, 1890, and died Oct. 10th, 1893. Owing to the condition of the mother's breast, the child had to be fed artificially, and proved to be a difficult case, as the digestion was very feeble, and even predigested food were badly borne for several months. After the first few months his history was uneventful, until April, 1893. There was never precocity, either mental or physical, and the child was one of the handsomest I ever saw.

*Read before the South Carolina Med. Society at Harris Lithia Springs April 6th, 1899.

In April, 1893, the father's attention was called to the condition of the child's bowels. As the little fellow was bright and cheerful the father paid little attention to it, beyond giving simple remedies and attending to the diet. Dyspeptic symptoms set in and were very decided, and the child began to emaciate. This condition continued throughout the summer months. In the early fall the stomach became very irritable and weak and gastro-intestinal symptoms were pronounced. He would eject every thing taken into the stomach, and as soon as he vomited call for more. The appetite was morbid, and thirst was extreme. The first nervous manifestation occurred in June. The father went into country about three miles to make a professional visit, and the little fellow wanted to go with him, and the Dr., thinking an outing would do him good, gave him the ride. He had not gone far when he noticed that the child had fever and could not support his head, and the Dr. thought the child paralyzed; but if a neurosis 'twas very slight and this symptom passed away in about a week.

On Oct. 1st, without premonition, the father noticed tonic contracture of one foot, and in a short time the other became similarly involved. By the next day the hands were in tonic spasm. The spasms were tonic in character from the beginning of the seizure, and continued for several days with a slight remission. The contracture was quite characteristic. The symptoms were manifest. The flexed fingers and toes, the flexed wrist and extended feet, arched planter surfaces all continuing in tonic contracture till death ended the scene. After death the thumbs were still flexed. In this case there never was a history of constipation. No headaches at any time during his illness. No convulsions, never opisthotonus, nor stiffness of muscles of neck. The pulse and respiration never showed the irregularity that is so characteristic of brain tuberculosis.

There was no conjugate deviation.

There was very slight somnolence during the last days of his illness, but there was perfect consciousness to the very last.

He was very fond of his eldest sister, who had been his constant companion, and as long as life lasted would call her. A very short time before he expired he called his mother, and continued to do so, as long as he could whisper. I give this part of the history to show his mental condition.

From what cerebral disease would you differentiate this case? Certainly Tubercular Meningitis. We would have in a child of this age with Meningeal Tubercles, disturbed sleep, swollen belly, constipation alternating with diarrhoea, headache, vertigo, causeless vomiting, probably double vision, grinding the teeth, sudden cries at night, failure of nutrition and emaciation as prodromal symptoms. Studying the symptoms and analyzing the case presented, we have an insidious beginning, failure of nutrition, and emaciation due to the continued diarrhoea, as symptoms in common, and these would have marked most protracted cases of Gastro-Intestinal trouble. Never constipated, no headaches or vertigo, sleep ordinarily tranquil, neither listless or apathetic, no cough, no irregular outbreaks of fever, but diarrhoea, the

marked symptom. The excitation period of meningeal tuberculosis would have been marked by fever, headache, vomiting, constipation, and soon these would have been followed by a hard retracted belly, changed disposition, exaltation of special and general sensibility, pain excited by movements, contractions and rigidity in muscles and in extremities, and urine would have been involuntarily passed. All these symptoms were wanting, save vomiting, contracture and slight fever.

In the 3rd stage of the disease, we would have unconsciousness, dilated pupils, nystagmus, rapid feeble pulse in place of the slow irregular pulse, full prominent abdomen, involuntary evacuations and failure of respiration or death in convulsions, which symptoms were not characteristic.

I make the diagnosis of tetany from the bilateral character of the contracture, by the onset of marked gastro intestinal symptoms, from the extremities alone being involved, in the absence of unconsciousness and convulsions, by the tonic character of the spasm, by the absence of cerebral symptoms, the unchanged disposition, from the pulse and respiration; and lastly from the clinical history of the case.

As tetany is a comparatively rare affection in America, I present the history of this case, which has never been published.

Pathology—Holt says, "up to the present time no constant anatomical lesions have been demonstrated in tetany. Its symptoms and course, all indicate that it is a neurosis probably dependent upon disturbance of nutrition in the nerve cells of the spinal cord and medulla."

Osler says. "The nature of the disease is unknown, but it probably depends upon the action of some toxic agent on the motor-nerve cell."

Intestinal Antisepsis.*

By J. A. RITCHEY, M. D., of Oil City.

AT the last regular meeting of our society, I had the honor to be appointed to open the discussion for to-day on "intestinal antisepsis." In these days of therapeutic nihilism on one side, and therapeutic nonsense on the other, when it is so easy to demonstrate to the dear people that the smaller the dose, the greater the effects; that a part is greater than a whole, and that one side of the body is presided over by an entirely different force than the other, and hence if a disease or pathologic condition begins on one side of the body, it requires a certain remedy to cure or put a stop to the diseased action, but if it begins on the other side, it requires an entirely different remedy, when we are expected to believe all sorts of absurd theories and deductions from them in regard to the real nature of disease, and cram our patients full of drugs of whose action we know very little, to relieve pathological conditions about which we know absolutely nothing, notwithstanding our ignorance in regard to the primary cause of disease, and less knowledge of the

*Read before the Venango County Medical Society, Pa.

remote effects of powerful drugs; we are expected to give something and give it continuously to satisfy the credulity of the people and hold our clientele.

These remarks, are to be considered general and to be applied generally. They are not always true, or at least not true to the same extent; however, it is my pleasant duty to-day to open a discussion on a subject that as rationally explains results from medicines as is possible under complex and varied conditions.

By intestinal antiseptics we mean the making of the alimentary canal aseptic by means of antiseptic remedies, and our object further must be to maintain this canal in an aseptic condition if we can reasonably expect to accomplish much by intestinal antiseptic treatment.

Now the important question comes, can we do this? and what are the means, measures and medicines by which we propose to accomplish this much to be desired end? The digestive secretions generally are the natural antiseptics of the bowels—the bile in particular prevents the fetid stools we generally have in fevers. When the bile is present in the alimentary canal, nature's laboratory is quite sufficient to keep the intestinal canal in an aseptic condition, at least for all practical purposes, and when temporarily unable to do so, produces an evacuating storm, accompanied with increased peristalsis, wind and water, by which she floods the entire alimentary tract, and by this means washes out toxins, ptomaines and offending bodies generally before they have time to be absorbed into the blood. Suppose, however, nature has been called upon too frequently to perform this work, she has exhausted her resources, is tired, worn out by being imposed upon beyond the limit of endurance; cannot arouse herself and throw off these toxic products. She now throws out her danger signals: headache, backache, boneache, muscleache, restlessness, insomnia, delirium, nausea, disturbed heart's action and elevation of temperature. Twenty-five years ago, we gave these patients a cathartic dose of calomel and followed it with hydrochloric acid, and our patients recovered promptly. Of course, we gave these medicines empirically because we had learned that they could be relied upon to do the work. Now we know that they are two of the very best intestinal antiseptics known to the profession.

There are always two objects to be kept in view in treating any diseased condition on the principle of intestinal antiseptics. The first one is to remove all toxic matter as far as possible from the intestinal canal by injections and cathartics. The more thoroughly this can be done, the easier it will be to disinfect what remains, which, of course, will have to be done by taking internally chemical antiseptics. No one will deny the fact that by enemata and cathartics, as a rule, we can remove from the alimentary canal the greater part of anything that may chance to be in it. Very few will deny that the focus of such diseases as cholera, cholera infantum, cholera morbus, typhoid fever, etc., is in the alimentary canal, and that it is well to get rid of all offending material, and it is only the clearest common sense that to get rid of all this source of infection by mechanical means is good treatment and the

proper thing to do. There cannot possibly be much pain or any possible danger in this part of the treatment and hence we have established the first proposition.

The following important proposition still remains unanswered: Is it possible by chemicals, to disinfect, sterilize or render aseptic what still remains in the intestinal canal after all proper means have been used to evacuate its contents? When decomposition of the contents of the bowels takes place, sulphuretted hydrogen is evolved, and when sulphuretted hydrogen comes in contact with bismuth, the stools are blackened. Now, where certain intestinal antiseptics are given in sufficient quantities, bismuth fails to blacken the feces, hence no decomposition takes place. Phenol, one of the most constant products of intestinal decomposition and which is generally eliminated by the urine, disappears entirely after the administration of thymol. That certain drugs destroy ptomaines, or toxic intestinal alkaloids, seems to be an established chemical fact. That a great many typhoid symptoms disappear, or are materially mitigated promptly after the administration of intestinal antiseptics, no one who has carefully watched their effects will deny.

Cholera infantum is cured promptly by stopping the use of milk entirely, which is the primary cause, by washing out the bowels and destroying the remaining toxins by the sulphocarbolates, calomel, or other reliable intestinal antiseptics. Cholera morbus, of course, can be cured by the same treatment. When these diseases are generally recognized as cases of acute ptomaine poisoning, and treated on the principle of intestinal antisepsis the mortality will drop to very near zero. Calomel is probably the best of all the antiseptics; it is a reliable cathartic, as it prevents the growth of microbes and kills them after they are full grown, so that after giving calomel, for 10 these many years empirically, we are now able to give a reason for the faith so long in us that calomel is the remedy *par excellence*.

Twenty-five years ago, I began treating typhoid fever by the routine administration of hydrochloric acid; giving fluid nourishment exclusively, principally milk; bathing with soap and water sufficiently to keep the patient clean; giving him all the water he wanted to drink; seeing that the sanitary surroundings were as perfect as practicable, and allowing the bowels to take care of themselves unless the stools were too frequent and fetid, of course treating complications as they might arise, very much as I do now.

In this manner I treated typhoid fever for about ten years; the mortality was quite low. I think my success was about equal to that of my neighbor practitioners. For the next ten years, I treated typhoid fever about the same way, with the difference: Instead of hydrochloric acid, I gave tincture of iodine and carbolic acid, and my success remained about the same. About that time, my former classmate and good friend, Dr. Waugh, then of Philadelphia, now of Chicago, began to write and talk about what he called the antiseptic system, and as far as I know, he was the first to advocate intestinal antisepsis, as a system of treatment. For the last five years, I have used

neither of these remedies indiscriminately, or as a routine practice. Having used the sulphocarbolates, thymol, guaiacol, naphthalin, nitrate of silver, salol, creasote, turpentine, charcoal, including, of course, calomel, iodine, the mineral acids, carbolic acid, etc., in my opinion, calomel combines more virtue than any one remedy. As stated before, it is cathartic, aseptic, and antiseptic, and at the same time, it attacks and destroys more fecal bacteria than any other one remedy.

Guaiacol, thymol, naphthalin have a special antipathy to the bacillus of Eberth. Hence, with any one of these remedies given in sufficient quantities to maintain intestinal antiseptis, with calomel enough to produce two or three liquid or semi-solid stools in every twenty-four hours, you have an ideal treatment. It will usually require from 20 to 40 grains of either one of these remedies given every 24 hours, in divided doses, to maintain intestinal antiseptis, and in order that there may be no doubt about the aseptic condition of the canal, it is well to administer 8 or 10 grains of salicylate of bismuth every 24 hours in divided doses. If the stools are not blackened by the bismuth coming in contact with sulphuretted hydrogen, the contents of the bowels are aseptic, and the dose is sufficient; if the stools are black, of course increase the dose. Salicylate of bismuth is a very good intestinal antiseptic, and there can be no harm in thus administering it. On the other hand, it may do infinite good by indicating how much of the remedy is required, because, if we give the remedy in a half-hearted way, or give too little to produce certain results, namely, the destruction of the micro-organisms in the canal, and the cutting off of all reinforcements to those that have escaped to the blood channels we fail in our object. That the typhoid bacillus has been detected in the blood at a very early period in the disease is admitted, but that there is an army of leucocytes there, to take care of just such intruders, cannot be denied. The typhoid bacillus enters the alimentary canal at the mouth, travels downward till it reaches the lower part of the ileum, and there builds its nest in that secluded and filthy spot, surrounded by the most noxious of all the intestinal micro-organisms, breeds and hatches out countless millions of its kind. Now if we admit that efficient intestinal antiseptis is possible—and the evidence seems indisputable—nothing is clearer in medicine than that we should at once and promptly clear out this nest of infection, remove all offending material we can, and disinfect the rest.

This is not an essay on typhoid fever, in its entirety, but only so far as intestinal antiseptis bears on the disease. In passing, however, I may remark, that the second condition, that of following the bacillus into the blood, and seeing to it that it is exterminated there, is best done by aiding the leucocytes in a short time by giving nucleinic acid.

If this be true, and there is no better authority, the nuclein is always indicated to increase the army of leucocytes that must be depended upon to destroy the army of invasion comprised of typhoid bacilli. Probably the safest and best all round intestinal antiseptics are the sulphocarbolates. They cost less, are less irritating, and can be given for any indefinite length of time,

without any unpleasant affects. The adult dose is four or five grains every two or three hours, until the contents of the bowel are rendered aseptic and the stools odorless, and if you are not satisfied when this condition is secured, try the bismuth test.

Charcoal is one of the safest antiseptics. It is cheap, and not hard to take. It is not an antiseptic in the true sense. It merely has the power of absorbing putrid gasses, and the quantity required is impracticable. Quite recently, I had some experience with charcoal as an antiseptic which is worth relating, as well as remembering. The doctors in consultation were all in favor of giving an intestinal antiseptic, but could not agree on the special drug. They finally compromised on charcoal, and we began by giving a neat little tablet every four hours. The next day the tablets appeared at the outer end of the alimentary canal in the exact form, color and consistency they entered. So that if you are ever constrained to give charcoal, do not give it in tablet form, unless you at the same time give strict directions to have the tablets chewed to a fine powder before they are swallowed, and then only give it as an adjuvant, as it is not capable of doing the work alone, at best, it can only prevent decomposition. Baptisia is a remedy given extensively by the Eclectics and Homœopaths. I have never used it, but am inclined to the opinion it is quite an efficient remedy. The Woodbridge treatment of typhoid fever is on the principal of intestinal antiseptics. It simply advises the mercurial treatment. A new intestinal antiseptic, is carbonate of guaiacol, which has no claims of being any better, if as good as many others already well tried and found efficient. Hydronaphthol prevents all the growth and development of any and all microbes, and destroys all their toxic products at the same time. Biniodide of mercury has a high germicidal power, but at the same time, it has a high toxic power; it is one of our most powerful antiseptics, but its high toxicity makes it of very little value as an intestinal antiseptic. While it is sixteen times more powerful than beta naphthol, it is 250 times more toxic, so that we can safely disinfect fifteen times more material with the beta naphthol than the biniodide of mercury.

We have so many of these remedies that it is largely a matter of taste which one we shall use. That they will do the work, if given in sufficient doses seems unquestionable. That many of them are illy borne by delicate organisms and weak and irritable stomachs is too true, and herein lie the difficulties which test and try the tact and skill of the physician. You may not in many instances be able to completely sterilize all the contents of the intestinal canal, but in every case where the fetor of the stools is especially offensive, give these remedies, and they will do good. In all cases of chronic or obstinate constipation, intestinal antiseptics are indicated. In these cases there is more or less absorption of toxins into the blood—auto-intoxication—and this is why constipation makes cranks of us all.

If you see anything in this journal that you differ from, write us about it; if you see what exactly agrees with your views and experience, write about that also. Give us the benefit of your views. Send us reports of interesting cases.

North Carolina Medical Journal.

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Editorial.

THE TOBACCO HABIT.

Dr. Matthew Woods recently read a paper before the Alumni Association of the University of Penn. in which he expresses his views upon the "Minor Immoralities of the Tobacco Habit." We had become pretty well settled in the belief that alcohol was responsible for a very large share of human ills, and a certain book, usually held to be authoritative, says that the love of mammon is at the root of all evil, but Dr. Woods somewhat destroyed our equipoise by his lurid catalogue of the flagrant vices having their origin in nicotine. Strange to say, the chief evil of the tobacco habit, in his opinion, lies in the fact that the use of the weed conduces to a feeling of contentment and satisfaction with one's surroundings, for "discontent," says he, "is the originator of reform; the mother of science, literature and art; the maker of beauty, the divine cause to which we are indebted for the amenities of social intercourse and all the buoyant exhilarations of modern life. But for it, Luther would have remained a monk; freedom of speech, tolerance in religion, rights of private judgment, liberty of conscience would have been unknown, the Declaration of Independence unwritten."

Fortunately for us, tobacco was unknown in the days of Columbus, or wrapped in its seductive fumes he might have remained content with a flat earth and an undiscovered Western hemisphere.

The sad plight of the workingman who is the degenerate victim of the pipe is thus described: Returning from the work of the day with a pittance about sufficient for bread, larder empty, children half clad, wife worn out with the overwhelming perplexities of the day, the home and its misery presenting a spectacle that appeals to his better nature, and for a time "wrapped i

the worldly creed of prudence," he is under the influence of that discontent that would soon affect a betterment of his estate. He is a teetotaler, perhaps, with scruples against beer, but there on his mantel, void of ornament, lies a pipe black with the stains of long usage, and soon under the power of its discontent-dispelling influence, what cares he for the misery of his condition, the cough of his pallid wife, the helpless cry of half-fed children, the tawdry emptiness of his spare apartments, for with a garrulous newspaper in his hand and a pipe in his mouth, is he not translated into the listless paradise of self-complacent minds where care does not enter; and "the slavery holds him within this sepulchre of ambition," and will not let him go until the grave closes over him, a tobacco-saturated victim of self-indulgence, his orphaned children too often a care on the State?

Had the Doctor not positively informed us that tobacco was the cause of the above pitiful condition, we should have diagnosed it as a case of chronic alcoholism.

Dr. Wood's argument against tobacco is an original one, and we much fear that if it really possessed to the extent he describes, the wonderful powers of robbing a man of his discontent, or producing a form of cerebral flatulency out of all proportion with his surroundings, its habitues would be rapidly on the increase. We cannot overlook the fact, however, that the world has made greater progress since Raleigh first introduced tobacco, than ever before and the spirit of unrest has certainly not decreased, though the use of tobacco had very little to do with it in either case.

Every physician will agree with the author of this interesting paper in so far as what he says applies to the physical evils resulting from an excessive and improper use, but as a cure for a discontented mind we have known some lovers of the weed who excelled as "calamity howlers."

SPECIAL ISSUES OF THE JOURNAL.

This number of the JOURNAL has been especially devoted to the consideration of the Stomach and Intestinal Diseases so common during the spring and summer months. It is a subject which we believe will be of unusual interest at this time, particularly as regards children.

The idea of a special issue of a medical journal given up to the discussion of a certain disease, or class of diseases, while not entirely new, is still something of a departure, the success of which must be to some extent at least problematical.

We cannot help feeling, however, that an occasional issue of this character will be both interesting and instructive to our readers, and if such prove to be the case, it is our intention at stated periods to print a number as far as possible given over to the consideration of some definite subject. Such an undertaking involves an extra amount of work and expense on the part of the editors, but if the plan meets with the approval of our professional readers we shall cheerfully take up the burden. Meanwhile we shall be pleased to have an expression of opinion from any of our medical friends.

News and Items.

Vaccination.—In the editorial on smallpox in the JOURNAL of April 5th, we gave Dr. Hutchins' method of vaccination. Several physicians have informed us that they have, since reading this paper, tried Dr. Hutchins' plan and are much pleased both with the "modus operandi" and the results.

Reed and Carnrick's Removal.—On April 1st, the above well known firm moved into their commodious new factory building at Nos. 42, 44 and 46, Germania Avenue, Jersey City, N. J. Their post office address is P. O. Box No. 3040, New York City. We congratulate this enterprising firm on the growth of their business which renders this enlargement necessary.

The Antikamnia Chemical Co. have prepared and are mailing to every english speaking physician in the world a "Fœtation and Parturition Chart" by Louis Crusius, A. M., M. D. This chart contains 23 colored illustrations of the Human Embro beginning with the second week and ending with a natural size picture of the fœtus at about 4½ months. Accompanying these illustrations and explanatory text is the Antikamnia Parturition Tables giving at a glance the date of termination of gestation.

The Reidsville Sanitarium,—Drs. J. C. Walton and J. A. Williams opened a hospital for the treatment of medical and surgical cases in the thriving town of Reidsville, N. C., in February last and have met with gratifying success. Our home people are beginning to learn that they can obtain scientific surgical attention in institutions located in Carolina, and many who a few years ago would have gone North for treatment are now finding health and returning strength in hospitals in our Southland, in charge of Carolina physicians and surgeons. Drs. Walton and Williams are young men of promise and will succeed—in fact success is theirs already—and they deserve it.

Bartlett, Garvens & Co.—Messrs. W. Frank Powers and Robt. E. Anderson have purchased the entire business interest of the above named surgical instrument firm in Richmond, and will increase the stock and facilities. Mr. Anderson has been associated with the firm for seven years, and is fully posted regarding the wants of its patrons. The old firm did a good business, and with increased stock and facilities together with an extensive knowledge of the business and a fixed determination to succeed along the line of true business principles—it would seem to us that the prospects of Messrs. Powers and Anderson are bright. We wish them the success they deserve.

The Good Effects of Vaccination.—As an illustration of the good results that follow the systematic observance of vaccination and hygiene, attention is called to the present condition of Holguin, Cuba, as compared with its condition a few months since. A few months since we mentioned that Dr. Woodson on occupying Holguin found that smallpox was epidemic there and had been for several years; that he cabled the authorities at Washington for 1,000⁰⁰cots and a quantity of vaccine lymph. We called attention to the

fact that here would be exhibited a forcible illustration of the value of vaccination. The following item from the *Medical News* explains itself:

"Captain Woodson, surgeon in the Regular Army, reports that the smallpox epidemic in Holguin District has been totally exterminated. The disease had prevailed there for twelve years under the Spanish administration, but was vanquished in three months by the scientific methods of the Army. More than 10,000 persons were vaccinated, and 1,200 patients with smallpox were cured. Not a single American soldier contracted the disease, although they did guard-duty at the lazarettos. The sanitary condition of the district is now almost perfect.

In a letter to Dr. Paul B. Barringer, Chairman of the Faculty of the University of Virginia, Dr. George C. Worth, a medical missionary attached to the Presbyterian station at Kiangyin, China, sends these interesting notes:

"When I first came out here everything was so entirely different from what I had ever seen before that I was almost surprised to find that diseases were not different. The ordinary run of cases is about what one would find in a clinic at home. There are some differences; for instance, I occasionally have cases of leprosy. Elephantiasis is not uncommon, usually of the leg, but often of the scrotum. The whole land is soaked with malaria of every form. For this I use cinchonideia, which is much cheaper than quinine and seems to be as effective in the majority of cases, given in doses one-third larger than quinine. The Chinese are *very* susceptible to the effects of quinine. Last year I treated about five thousand patients; at the rate my clinic has been running this year the total will be about seven thousand. The most troublesome cases that I have are the attempted suicides—mostly opium. They are often long distances away, and, like obstetrical cases, seem always to happen at night. Last year I was called to an obstetrical case and found a transverse presentation. The arm had prolapsed and had been *pulled off* by the midwives, my finger, on examination, coming against the exposed ribs. This case being successfully delivered by version, I soon after was called to one of the prominent families to a similar case. Since that time I have had a number of difficult obstetrical cases, most of them transverse presentations with prolapsed arm and cord. They usually call me about the third day, after the woman is exhausted with pain and the fruitless efforts of the midwives. Thanks to Dr. Dabney's instruction and my experience in the City Maternity Hospital in New York, I have been successful in every case, and have even saved a baby or two. Every Chinese woman, rich or poor, high or low, must sit up during parturition. They are never allowed to lie down. They sit over big wooden tubs into which the babies are born and which afterward serve as cradles. These tubs are *always* painted bright red and form a most conspicuous as well as *invariable* item among the bride's wedding presents."

Dr. Worth, above referred to, is an old Wilmington boy, and his many friends in the State and elsewhere will be pleased to hear of his good work in his devoted calling.

Book Reviews.

A Text-Book on Practical Obstetrics. By **EGBERT H. GRANDIN, M. D.**, Gynecologist to the Columbus Hospital; consulting Gynecologist to the French Hospital; late Consulting Obstetrician and Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, etc. With the Collaboration of **George W. Jarman, M. D.**, Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbia University; late Obstetric Surgeon of the New York Maternity Hospital; Fellow of the American Gynecological Society, etc. Second Edition. Revised and Enlarged. Illustrated with Sixty-four Full-page Photographic Plates and Eighty-six Illustrations in the Text. $6\frac{1}{4} \times 9\frac{1}{2}$ inches. Pages xiv-461, Extra Cloth, \$4.00 net; Sheep, \$4.75 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

The authors, in their preface, tell us that every effort has been made to state the facts of Obstetric Science in the clearest possible manner, devoid of any unnecessary Theoretical or Pathological discussion. They have succeeded in their object. Every detail of any Obstetrical operation, all well established points of diagnosis and management are set forth in a definite way so that the reader is not clouded by a multiplicity of statement on the same subject. It will thus prove of great value to the busy practitioner who often has not the time to search a mass of literature in order to find the exact information he desires. The book is eminently practical, dealing with facts and conditions rather than with theories, is profusely illustrated and thereby approximates as nearly as a book can the clinical method of teaching.

The new edition has been thoroughly revised and the more recent additions to our knowledge of obstetric surgery and the management of the puerperal state receive especial attention. We can cordially recommend the work to any one who wants a text book on obstetrics that will be of help to him in his every day work.

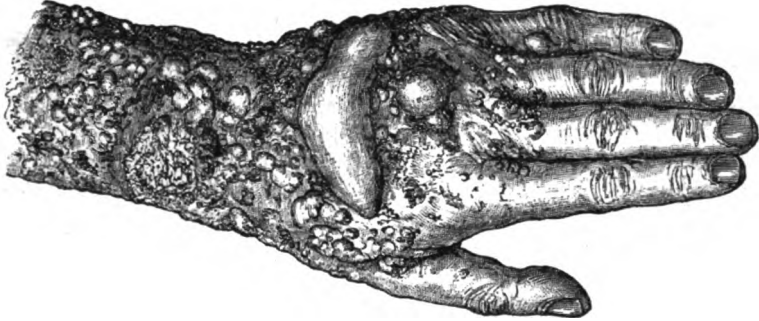
An American Text-Book of Diseases of the Eye, Ear, Nose and Throat.—Edited by **G. E. DeSchweinitz, A. M., M. D.**, Professor of Ophthalmology in the Jefferson Medical College, Philadelphia, etc., and **B. Alex. Randall, M. A., M. D., Ph. D.**, Clinical Professor of Diseases of the Ear in the University of Pennsylvania, etc. Illustrated with seven hundred and sixty-six engravings, fifty-nine of them in colors. 1251 pp. Price, cloth, \$7.00; sheep or half-morocco, \$8.00 net. Philadelphia: W. B. Saunders. 1899.

In the portion of this work devoted to the eye, its embryology, histology, anatomy, physiology, diseases and injuries are discussed by twenty-four authors, in as many sections; its operative surgery in seven sections by as many authors, while certain practical details in the examination of railroad employees and others for color-blindness, etc., receive attention in an appendix. Standards of vision both as regards visual acuity and color sense required by railroads; micro-organisms that sustain a causative relation to ocular disease; the x-ray in eye surgery are each the subject of a special article.

In the portions of the work devoted to throat, nose and ear, anatomy, physiology, diseases, and injuries are discussed in thirty-three sections by as many authors.

Throughout the whole volume the "practical side" is kept well to the front and the articles are all worthy of the places they occupy. The editors are men of ability who have earned their reputation by hard work, and this volume does them credit. The illustrations are good, the paper, printing and binding all that could be desired.

The Ready-Reference Hand Book of Diseases of the Skin.—By George Thomas Jackson, M. D., Professor of Dermatology, Woman's Medical College of the New York Infirmary and in the Medical Department of the University of Vermont, Chief of Clinic and Instructor in Dermatology, College of Surgeons, New York. New (3rd) edition. In one 12mo. volume of 638 pages, with 75 illustrations and a colored plate. Cloth, \$2.50; net. Lea Brothers & Co., Philadelphia and New York.



The early exhaustion of the second edition of this work is a gratifying indication of the favor with which it is regarded by students and practitioners. All dermatological advances made in the interval are fully presented in the new edition by revision and by the addition of new matter and illustrations.

The alphabetical arrangement of the book having proved acceptable, has not been changed, and practitioners, students and specialists will find it as heretofore a most concise and readily available source of knowledge on all dermal affections, their etiology, symptoms, diagnosis, treatment, prognosis, etc.

It is a work calculated to be of unusual value to the general practitioner, being rich in illustrations, a specimen of which we have reproduced.

Gerrish's Anatomy by American Authors.—Gerrish's forthcoming *Anatomy by American Authors* promises to be the work for which teachers and students have long been looking. Its editor, Prof. F. H. Gerrish, of Portland has selected as his fellow-contributors leading anatomists throughout the country, wisely restricting their number to accord with the best division of the subject, gaining thereby unity in result joined with the highest authority. The list includes Professors Bevan of Rush in Chicago, Keiller of the University of Texas, McMurrich of the University of Michigan, Stewart of the University-Bellevue College in New York, Woolsey of Cornell Medical College likewise in New York, and Gerrish himself, who is not only editor but perhaps the largest contributor.

The plan of the work judiciously avoids the unimportant and exceptional, reserving its space for those portions of anatomical knowledge which are necessary to the intelligent study of physiology, surgery and internal medicine. The authors have endeavored to stand in the place of a living teacher to the student, selecting such portions as will be of actual service to the pupil in his study and to the practitioner in his subsequent clinical work, clarifying obscurities, giving most help in the most difficult parts, and illustrating everything by all available methods. Pictorially *Gerrish's Anatomy* will be by far the most lavish work ever offered on a subject which can already boast of many elaborately illustrated textbooks. They number about one thousand, their size is large enough to make visible every detail, colors have been employed more liberally than ever before, and lastly the labels of the parts have been conspicuously engraved upon them whereby a glance gives not only their names but also their position, extent and relations, obviating entirely the slow, toilsome and wasteful mental processes necessitated where only reference letters are employed.

In an early issue we shall give our readers a review of the book itself.

Review of Medical and Surgical Progress.

Operation for Typhoid Perforation.—Dr. Hugh M. Taylor, (*Va. Med. Semi-Monthly*) reports a case in which repair of the intestines was done after perforation by a typhoid ulcer with successful results. The case was that of an interesting little boy who had been sick with typhoid fever for six weeks; was then convalescent two weeks; fever again for ten days; and convalescence again apparently assured. The father reported that the child had slept well all night, but awoke about 6:30 with a sharp pain in his abdomen which lasted only a few minutes and was followed by a natural fecal action. A dose of syrup of figs was at once followed by vomiting, the vomiting being repeated several times. There was another short attack lasting only a few minutes, after which the child insisted that he was all right and had no pain. While perforation was suspected the child was not sick enough apparently to justify such a suspicion. He expressed himself as being without pain, and his untroubled countenance confirmed this assertion. There were no evidences of shock, and those who saw him at the outset of the sharp attack could not say that even then he presented any of the symptoms of shock. His pulse was now 115, and his sublingual temperature 101° F. Respiration was not noticeably increased, and his *morale* was exceptionally good; there was, however, some appreciable rigidity of the abdominal muscles. An absence of fever for several days, the sudden onset of pain and vomiting, a recurrence of fever, and rapid pulse, plus the abdominal rigidity, was the group of symptoms which made me fear a perforation.

The author recited the symptoms thus minutely to impress the fact that perforation may occur with only minor manifestations, or, in fact, with no symptoms at all. The child was taken to the hospital at which time the pulse had reached 140 while the temperature was only 100.5° F. The operation was done fifteen hours after the first onset of the symptoms the incision being made over the cecal region, thus giving access to the appendix as well as to the lower end of the ileum, in the last eighteen inches of which a large majority of typhoid perforations are known to occur.

On incising the peritoneum, a quantity of sero-purulent fluid escaped from the peritoneal sac, but no gas. The cæcum was quickly delivered, and not more than twelve inches of the small bowel was examined before the punched-out, pencil-sized hole in the ileum was discovered. There was but little if any appreciable inflammatory change about the intestinal lesion; in fact, it looked as if a cobbler's punch had been driven into a healthy bowel and a circular section punched out. To close the opening with deep mattress and Lembert sutures was the work of a few minutes. In ten minutes from the time the section was begun, the abdomen was opened, the lesion found, and sutured. This fact as to the time consumed is not mentioned to extol rapid work, for not infrequently rapidity of operating is at the expense of thoroughness. We would, however, impress the idea that the technique

of dealing with typhoid perforations may be very simple and quickly completed. Upon first thought, it looks like desperate surgery to subject to celiotomy the cadaverous looking patient, ill with typhoid fever for weeks, with the added prospect of prolonged anæsthesia, extensive evisceration, etc., to find the suture the bowel opening, but knowing the usual site of the lesion, near the ileo-cæcal junction, we have, in all instances, a starting point from which to begin our search.

In addition to the free discharge of sero-pulent fluid from the peritoneal cavity, a number of flakes of lymph were discovered, and not more than half an ounce of greenish looking fecal fluid was found puddled near the perforation. Suppurative peritonitis was obviously quite general. No effort at walling had been made. No one who saw this clean cut perforation, with not the slightest trace of adjacent plastic peritonitis, could fail to be impressed with the idea that death was inevitable without surgical intervention. Twenty minutes more was consumed in eviscerating the patient, in wiping the intestines, in thoroughly irrigating with hot saline solution the abdominal cavity, and in placing multiple gauze drainage. In thirty-seven minutes from the beginning of the operation, the patient was removed from the table to his bed. Let me here remark that twenty minutes of this time could probably have been saved if the patient had been operated upon in the morning. At that time, it would probably have been best merely to have sponged off the soiled area, and drainage might have been dispensed with.

It has now been four weeks since the operation was performed. Convalescence has been uneventful, and recovery is assured. Statistics should now read, 61 operations, 14 recoveries.

Removal of Seven Hundred and Five Pebbles from the Bowel of a Child.

—Dr. Eugene Argo, (*Ala. Med. and Surg. Age*) reports the following remarkable case :

I was called to see Charley McCarty September 12, age six, male ; found him suffering with pain, griping and tenesmus, with frequent desire to stool and passing nothing but a muco-sanguinous discharge, with some elevation of temperature. On further inquiry I found history of dirt eating which his peculiar sallow appearance would readily reveal. His father had kept him guarded, and in the house for some weeks to break him of his liking for dirt. Finally one afternoon he went at large, and I suppose clay not being very accessible, and the pebbles being in great abundance, he proceeded to satisfy his peculiar appetite by filling his stomach with these little rocks. On examining his bowels, I found the abdomen apparently full of these pebbles. They had lodged in the rectum until a complete impaction had come about. Manipulation over the abdomen would remind me very much of grit in a chicken gizzard. I introduced my finger into the rectum for the purpose of clearing it, but the pain was so great and the contraction of the sphincter was such that I resorted to chloroform anæsthesia. After removing a lot of the pebbles with an ordinary pair of forceps, I gave an enema of castor oil, and cleared the lower portion of the rectum with my finger. Finding still more "rocks" higher in the bowel, I gave a number of enemas of warm water and soap. With massage, enemas, oil and endurance, I finally removed in number seven hundred and five pebbles.

Eye, Ear, Nose and Throat Department.

In charge of W. H. WAKEFIELD, M. D., Charlotte, N. C.

New Instruments for Excision of Tonsils.

It is conceded by all physicians of large experience in the treatment of throat and nose diseases that enlarged tonsils and adenoids should be removed surgically, and the market is flooded with instruments for that purpose.

The following paper is reproduced from the Journal of Am. Med. Ass'n. as it advises a mode of procedure in the removal of tonsils that is, perhaps the best. [I use the instruments in my practice and am pleased with them. —ED.]

The author, W. H. Peters, B. S., M. D., Lafayette, Ind., says :

As to the anatomy and pathology of the tonsil, I will only say that the normal throat has nothing of the kind in it. And as to treatment, nothing but complete removal of the diseased glandular mass gives the desired relief.

Many plans are in use to accomplish this. The guillotine will slice off the tonsil, and in children, if the claws which complicate it are removed and suitable forceps used in their place, the guillotine is fairly satisfactory, but hemorrhage is free.

Though not dangerous in children, this hemorrhage is troublesome, because it interferes with the simultaneous removal of the pharyngeal tonsil, which is almost invariably present.

In the adult, however, this hemorrhage is a serious matter and has been fatal in many cases. To avoid this, Barnett and other authors recommend that a snare be used—the growth being cut through gradually—several hours being consumed in the operation. The method is worthy of the Inquisition.

The galvano-cautery loop I must condemn by using Burnett's own words: "We may resort to the cautery in suitable cases, which are certainly exceptional, with a feeling of security and with the expectation of getting a thorough and satisfactory result."

My personal experience with the cautery loop has been confined to a single case, in which acute otitis media resulted on the fourth day.

Other authors have devised an array of scissors, cutting forceps and knives which do the work well, but the operation is a bloody one, requiring general anæsthesia and an hour's time to complete it.

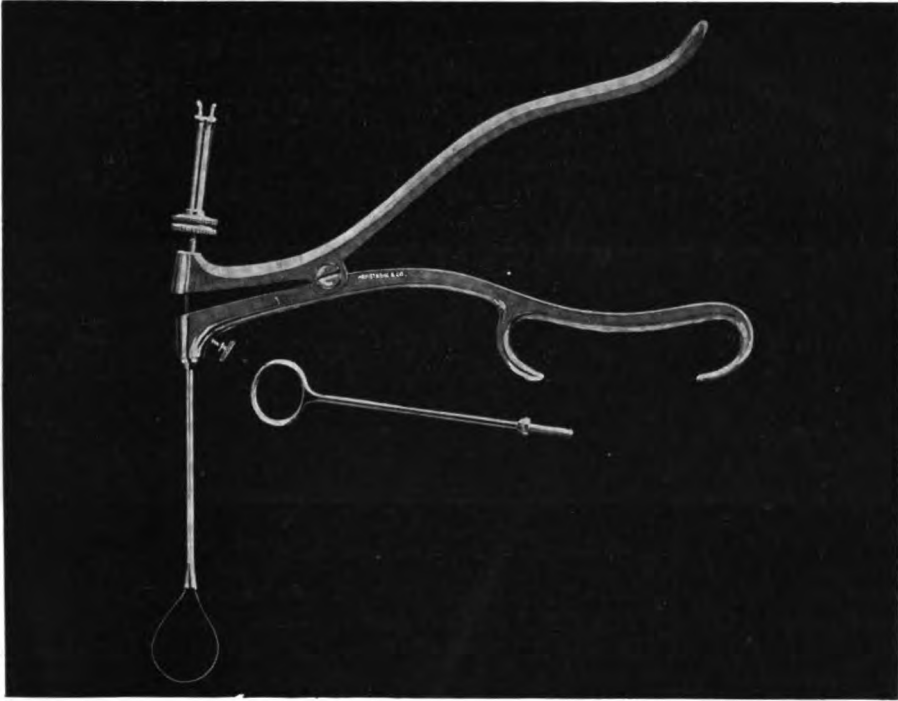
Igni puncture is too tedious, months being required and a bad cicatricial stump remaining.

The guillotine, then, with its limited usefulness; the ordinary snares, with the prolonged torture and shock, certainly indicate a demand for something different.

Here let me say that the tonsil must be completely removed; that tonsils which absolutely demand removal are often deeply imbedded or diffused over a surface of an inch and a half by two inches in size. In tonsils of the kind named, the guillotine and cautery snare are useless.

In 1888 I devised a tonsil snare which was finally perfected in 1890, and has been in almost daily use ever since, with such satisfactory results that I beg to present it to you.

The instruments I show you belong together. In small children, chloroform is used. In children over ten years of age and in adults it is unnecessary. In children, the fenestrated tip recommended by Dr. Vedder, of Pitts-



Length of Snare Handles, $8\frac{1}{2}$ inches.

burg, is always used, and the suggestion he makes to form the wire loop around a piece of hard wood is valuable.

The operation is performed as follows :

In infants, the child under cloroform; the patient lies upon a couch, with his head toward an artificial light four feet away; my assistant kneels at the patient's head and I stoop over the patient at the side. The instrument has been prepared as you see—two extra fenestrated tips being held in reserve. Here let me say that the screw adjustment in this instrument is never under any circumstances used except to regulate the size of the loop before operating. The patient's tongue is held down by myself or my assistant, as the case may require. If the tonsil is prominent, no forceps are used, and I hold the tongue depressor myself. If not prominent, the forceps are passed through the loop, the tonsil seized, the traction made, and with a single stroke the tonsil severed.

The other tonsil is removed at the same time. The operation up to this time is bloodless, and now the index finger explores the naso-pharynx for adenoid trouble. If present, and it usually is, the mass is removed by Gottein's curette. This operation has taken less than a minute, and the child is rolled to the edge of the couch, with his face immediately over the opening of a fountain cuspidor. (This latter is of my own design. It takes care of any vomited matters, etc., though vomiting is very rare.)

In adults a 25 per cent. solution of cocaine is applied around the tonsil and in its crypts, and the tonsil is seized, drawn through the loop and severed by a single stroke.

In some tonsils, one in six, perhaps, some dissecting is necessary, and this requires only two or three rapid strokes of the knife.

The patient himself, even among children, holds the tongue down with a tongue depressor while the operation is being performed.

In many cases of diffused tonsils a second or third application of the snare, without the patient leaving the chair, is necessary.

As a rule, the hemorrhage does not exceed a few drops. Only in one case has it been sharp—in that of Miss Hattie K., 14 years old, living at



Length of forceps, 8 inches.

Rensselaer, Indiana, Dr. Burkley being present. In that case the tonsils were enormous, and there was a sharp gush of blood, about two ounces in all, but it stopped kindly, and in no way alarmed the child or rendered me uneasy. She returned a week later and had the second one removed—the same phenomenon recurring.

I have never seen a drop of secondary hemorrhage from any tonsil.

The snare handle should be made of machinery or soft steel—not tool steel—and of the full size shown. A worthless imitation of this snare is on the market in Chicago. It is too light to be of value. The forceps are easily aseptic and have a wide range of usefulness.

Bosworth's special tonsil snare is altogether too weak, as he himself admits. The snare I show will easily remove any tonsil instantaneously, no matter how hard it may be.

I use No. 10 piano wire, as No. 5 is too light; I have broken it. The No. 10 wire can be obtained from Wm. H. Armstrong & Co., Indianapolis, Ind., who make these instruments.

This operation, the instant ecrasement of the tonsil with cold snare, is original with me, I think, and the instruments employed certainly are original. I use these instruments in the removal of lingual tonsils. *Never use a wire the second time.*

AFTER TREATMENT.

In children there is little or no pain following and no treatment necessary. In adults—no matter how the tonsils are removed—there will be pain following the operation, except in such individuals as are by nature insensitive. The pain is less in ordinary enlargements where the gland can be wholly removed at a single stroke; but in every case there is a raw surface which will be irritated by swallowing. The patient is ordered to gargle the throat with hot water, to avoid sour and salted foods, and to eat chiefly crackers and milk and medium-boiled eggs, for twenty-four hours.

Therapeutic Hints.

Acute Dysentery.

R Magnes. sulphat ℥i.
Ac. sulphuric. dil. ℥i.
Aqua ℥iv.

M. Sig. Tablespoonful every 3 hours until proper evacuation; then enema of starch and laudanum.

Standard Prescription for Sick Stomach or Diarrhœa.

R Sacchari albæ ℥i.
Aq. camphoræ ℥iij.
Spts. lavender comp. ℥i.
M. Sig. Dose, tablespoonful.

Diarrhœa Mixture Without Opium.

R Tr. camphor ℥i.
Tr. capsici ℥ss.
Tr. lavender co. ℥i.
Spts. vin. gal. q. s ad ℥ii.
M. Sig. Teaspoonful every 2 or 3 hours.

—REX.

Infantile Diarrhœa.

R Bismuth. subnit.
Pulv. myristicæ aa ℥i.
Cretæ Prepar. ℥j.
Syr. Zingiberis ℥iss.
M. Sig. Teaspoonful every 2 or 3 hours.

For Subacute Diarrhœas in Children.

R Tr. Columba ℥iij.
Liq. Ferri Nitrat. gtt xxiv.
Syr. simplicis q. s. ad ℥iij.
M. Sig. Teaspoonful t. i. d.

—SMITH.

Vomiting in Children.

R Potas. bicarb. gr xxv.
Ac. citric gtt xviij.
Aq. Amygdolæ amaræ ℥i.
Aqua ℥ij.
M. Sig. Teaspoonful every time vomiting occurs.

—HOLT.

Flatulency and Colic in Infants.

R Spts. juniper comp. ℥iis.
Glycerin. ℥iss.
Aq. anisi q. s. ad ℥ii.
M. Sig. Teaspoonful in hot water as required.

—HATFIELD.

General Tonic:—

R Strychinæ sulphatis, gr. 1-60.
Acidi phosphorici diluti, m. v.
Ferri phosphatis, gr. j.
Quininæ bisulphatis, gr. j.
Glycerini, ℥ss.
Elixir aurantii, q. s. ad ℥ss.
M. et ft. sol.
Sig.—Take before each meal.

—Winslow Anderson, "Medical Record."

For Follicular Pharyngitis :—

R Iodine, 3 grs.
 Potassium iodide, 5 grs.
 Trichloroacetic acid, 7 grs.
 Glycerin,
 Water, aa ½ fluid oz. M.

To be applied locally. (The strength may be varied to meet the exigencies of the cases.)

—*Tri-State Medical Journal.*

Dr. Bucknum had this to say: "I have cured more cases of eczema with the following local application than with any other that I have ever used :"

R Acid salicylic gr. x.
 Hydrarg, chlor. mite. grs. xv.
 Zinc oxid. ʒ ii.
 Lanoline.
 Carbolyzed vaseline aa ʒ ss.

M et Sig :—Apply locally night and morning.

—*Col. Medical Journal.*

For Spasmodic Asthma :—

R Ammonii bromid. ʒ vi
 Ammonii iodid. ʒ iii.
 Tinct. lobelia f ʒ i.
 Syr. tolu q. s. ad fld. ʒ iv.

M. et Sig :—Take one teaspoonful in water every three hours.

—*Bucknum Col. Med. Journal.*

Ovarian Neuralgia :—

R Ext. Belladonnae, gr. iv.
 Ext. Stramonii, gr. v.
 Lactophennin, dr. iss.

M Ft. Pil. No. XX. Sig. Two or three pills a day.

MARTIN—*Med. News.*

Cathartic Pills :—

R Extr. aloes,
 Extr. rhei,
 Pulv. rad. rhei, aa 2 gm.
 Extr. colocynth, 0.3 gm.

M. ft. pil. No. lx. S. Three to four pills before retiring.

—NOTHNAGEL.

For Infantile Diarrhœa (Mikhrevich, "Month. Cyclop. Prac. Med.") :

R Bismuth salicylate, 24 grs.
 Gum arabic, 1 drachm
 White sugar, 1½ drachms
 Water, to make 6 fluid oz. M.

To be kept on ice.

SIG.—From one to two teaspoonfuls to be given three to six times a day.

R Mercurous chloride, 2 grs.
 Zinc sulphocarbonate, 3 grs.
 Pepsin, 30 grs.
 Bismuth subnitrate, 2 drachms. M.

Divide into 12 powders.

SIG.—To a child one year old, one powder three times a day.

—*Tompkins, "Month. Cyclop. Prac. Med."*

For Anal Fissure :

Europfan, 1½ grains.
 Cacao butter from 15 to 45 grains.

Mix and make a suppository. To be introduced into the rectum after the employment of a cleansing enema.—*La Presse Medicale.*

Tannalbin in Dysentery.—Waedemon¹ has used tannalbin in 200 cases of diarrhea with excellent results. In nurslings particularly, and in very young children, tannalbin was found to be especially useful, being successful in cases where other remedies had failed. Among the 200 cases were 171 children, of whom only two died, having come under treatment too late. Among the adults equally good results were secured, 14 out of 15 cases of dysentery being cured. Excessively frequent and bloody stools in a case of typhoid were immediately checked by the tannalbin. The best results were obtained by recurrence to large doses. To nurslings, 3 Gm. (45 grn.) were given daily, administered in a mucilaginous vehicle; adults received up to 10 Gm. (2½ dr.) even, daily, without the slightest inconvenience.

The author recommends tannalbin in all cases of infantile diarrheas, and believes it to be a veritable specific, and much superior to the remedies ordinarily employed in this class of affections.

¹ Annal. de la Soc. de Med. de Gand, lxxvii, p. 277.

Acute Nephritis.—Dr. J. M. Da Costa (*Coll. and Clin. Record*) gives his treatment of acute nephritis as follows:

I give pilocarpine hypodermically, every two hours, until I secure free action from the skin. If preferred, the pilocarpine may be given by the mouth; but I prefer, in these cases, to give the first dose hypodermically. In addition to this, I give the lactate of strontium, fifteen grains at a dose, four times daily. This drug is one of the most efficient, non-irritating diuretics that we possess; in addition, I am a believer in dry cupping over the kidneys, and in the use of hot vapor baths.

There are three drugs in acute nephritis which, to my mind, stand out with considerable sharpness above all others for efficiency—pilocarpine, digitalis, and strontium. I am particularly pleased with the value of strontium, which I consider indispensable in many of these cases. In this case we find that the quantity of urine, under this treatment, has steadily and rapidly increased from eight ounces on the first day to thirty-six ounces daily, then to forty-four ounces, then up to fifty-five ounces, while for the last twenty-four hours our patient has voided thirty-five ounces, which diminution our resident explains by the fact that the patient was given a hot bath. As to the ingredients of the urine: it now contains the normal quantity of urea, there are still some albumin and tube casts, but the blood has disappeared.

We will continue the treatment, keeping the patient on a milk diet, and using dry cups over the kidneys.

Dyspepsia of Phthisis.—For general use nothing can excel an alkaline mixture consisting of soda bicarbonate (15 grains), tincture of nux vomica (10 minims), and compound infusion of gentian (1 ounce), given before meals. If a sedative action be desired, dilute hydrocyanic acid may be substituted for nux vomica. The good effects of this mixture are witnessed not only by increase of appetite and relief of the dyspeptic symptoms, but at the same time expectoration is facilitated, whereby the cough is indirectly relieved.—*Percy Kidd, in Allbutt's System of Medicine.*

Reading Notices.

A FOOD IN INTESTINAL CATARRHS IN CHILDREN.—In a dissertation presented to the University of Bonn, Dr. Otto Oberlaender reports 15 cases of acute and 13 cases of chronic intestinal catarrh in which excellent results were derived from the use of lacto-somatose, both as a food and astringent. In many cases a cure resulted in three, or even less days; in a few after the administration of one to two teaspoonfuls of the preparation. In cases in which recovery did not ensue until the lapse of a week or more, the digestive disturbances had been present for a long time, or were of marked severity. In some of these cases also the administration of the preparation was discontinued too early, so that recurrences took place. In order to avoid these, therefore, the administration of lacto-somatose was continued for a number of days, even after a complete cure had been effected. The preparation was always well tolerated, and while devoid of any decided astringent affect, it exerted a favorable influence upon the intestinal mucosa, and at the same time supplied to the patient a sufficient amount of highly assimilable nourishment to tide him over the critical period of the disease, acting as a perfect substitute for other nitrogenous food. It is, therefore, recommended by the author in all conditions of fever and marked waste of albuminous tissues, in all acute conditions of exhaustion from loss of blood, as well as in diseases of the digestive tract in which it is desirable to avoid any mechanical irritation of the gastric mucous membrane.

CHRONIC GASTRIC CATARRH OF TEN YEARS STANDING.—George Reynolds, Stamford; American; age 56. October 8th, came to me presenting the following symptoms: loss of appetite, disagreeable feeling of gnawing and at times fullness in the stomach; tenderness at the epigastrium, but slightly influenced by eating; prominence of the epigastrium; morning vomiting, consisting of glairy mucus raised after great retching; constant thirst, water and at times stimulants being craved; often great burning at the pit of the stomach; bowels constipated; urine high colored; a feeling of mental depression; sleeplessness, with occasional attacks of vertigo; follicular pharyngitis of an aggravated type; much loss of flesh; muscles relaxed and the skin dry. The patient had suffered with this condition for ten years, and in spite of all treatments employed had been growing steadily worse.

I put him on the following course of treatment, after thoroughly regulating the bowels and secretions: a teaspoonful of bovine in milk every hour; to allay the thirst he was given half a teaspoonful of bovine in half a glass of ice water, as necessary. At the end of the third day the quantity of bovine was increased to a tablespoonful every two hours, this was continued up till the 19th, when the bovine was again increased to a wineglassful every three hours; at this time the morning vomiting had ceased, the pain in the abdomen had disappeared, and he had gained three and a half pounds in weight; treatment continued. October 29th, patient's condition splendid, feels hungry, but is still satisfied with the bovine and milk; treatment continued. November 8th, patient said he was well, all symptoms had disappeared, and he was now allowed a light general diet; from the beginning of the blood treatment up to the present time having taken absolutely nothing but the bovine and milk. November 12th, patient discharged cured, had gained twelve and three-quarter pounds in flesh, and was feeling splendidly.

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Original Communications.

An Unusual Case.

By M. R. ADAMS, M. D., Statesville, N. C.

IN submitting the following report of a case that recently come under my observation it is not inappropriate to remark that the singularity of the case and the absence of any parallel recorded in any of the medical authorities which I have had an opportunity to consult, suggests the skepticism with which it may be received by the fraternity. I therefore desire to preface this brief report by stating that three well known physicians of this community will substantiate the facts herein set forth in regard to this case. I am especially indebted to Dr. W. J. Hill, who very kindly gave me his notes in the case. Eliza C., a bright mulatto, aged forty-seven, married, mother of five children, has uniformly enjoyed good health. Sometime during the winter of 1891-'92 she ceased to menstruate, the exact date could not be ascertained. As there was a gradual and progressive enlargement of the abdomen together with other symptoms that usually accompany pregnancy, she very naturally thought she was pregnant, and later on when the movements of the child were distinctly felt, her surmises were confirmed. The case progressed favorably without any special event up to the following August, when symptoms suggestive of labor set in and a *midwife* was sent for. After having the usual prodromal symptoms of labor for ten or twelve hours, and not being satisfied with her progress her husband sent for the family physician, Dr. E. A. Hall, on August 17th, 1892, and after making a careful examination, general and vaginal, he decided she was not in active labor, but was satisfied that the symptoms would induce labor at an early hour and left her in charge of midwife, this being satisfactory to all parties concerned. Nothing more was heard from the case until the following October 7th, when again the family physician was called in, and to his surprise found patient with all the objective signs of advanced pregnancy and apparently in labor, with all the prodromal symptoms present, as found on his first visit, August 17th, but on vaginal examination no softening or dilatation of the os uteri was found.

On account of the peculiar features of the case, a consultation was suggested and held after which no active measures were taken. The patient being in general good health was advised to wait further developments. About, or a short time after this date, at irregular intervals, probably every month or six weeks, there was a decided flow from the womb simulating the menstrual flow, in fact she regarded it as such. Patient continued to improve and got so much better that she was able to resume her domestic duties, and felt as well as ever, in fact her friends regarded her as being fully restored to health. There was no material change in patient's condition until November 7th, 1898, when a fever of a continued type developed, and later on she became very much emaciated, with marked anorexia persistent nausea and vomiting, diarrhea, the loss of weight from 160 pounds to a mere skeleton, pulse much accelerated 100 to 120 with a temperature usual in septic troubles. The urine was free from albumen. As there was no improvement whatever in the case Dr. W. J. Hill was called in consultation on Jan. 20th, 1899, and after ascertaining the above history determined on an operation, believing there was a condition that could not be relieved in any other way and selected the following method of procedure. The patient being given the best possible preparation for the operation, January 24th 1899 was decided upon as the date for same.

Doctors W. J. and M. W. Hill, E. A. Hall and the writer being present. After a consultation the line of procedure was fully endorsed. After the usual antiseptic precautions in preparing the field of operation with green soap solution, bichloride mercury and alcohol and the use of Arnold's Sterilizer in the preparation of instruments the patient was placed on operating table.

After thoroughly anesthetizing with chloroform and ether an incision was made in median line from an inch above umbilicus to within $1\frac{1}{2}$ inches of pubic bone down to the peritoneum when extensive adhesions were encountered. Then an incision was made through peritoneum into abdominal cavity, a rubber sheet having been prepared to protect the abdominal contents from general infection. The adhesions were then carefully broken up from around the uterus. The incision was carried four inches in a vertical line into the cavity of the uterus. Here we found and removed the osseous frame work of a child fully developed, though entirely disarticulated, which was surrounded by a green, gangrenous, offensive fluid in quantity one quart or more. After the contents of the womb were removed, it was irrigated with a mild bichloride mercury solution.

The womb at this stage of the operation presented the appearance of what had been my conception of the womb in performing its function in normal labor. The interior of the womb presented an abnormal appearance. As expeditiously as possible the womb was sutured with silk worm gut, drainage being maintained through the os uteri below. The peritoneal cavity being carefully washed out with a hot normal saline solution, the abdominal

incision was then closed and treated in the usual aseptic manner. The patient passed through the operation without any marked event.

It might be well to state, however, at this point that patient lived thirty hours after operation. The operation was completed within an hour. This case is not reported on account of any peculiar surgical features that it may possess, but merely on account of the singularity of the case as was remarked in the beginning. The extraordinary fact of a child remaining in its mother's womb for the long period intervening from the time the child is believed to have reached maturity August 17th, 1892, to date of operation January 24th, 1899. Approximately six years and five months without the mother who was a domestic, laboring woman, having scarcely lost a day from her usual work until about two months prior to operation. From the standpoint of the general practitioner this is an interesting case as to its relative merits in the management of labor and the puerperal condition generally.

The Care of the Sick and Wounded in the War of the Revolution.*

BY FRANCIS R. PACKARD, M. D., PHILADELPHIA, PA.

Late Assistant Surgeon, 2nd Penn. Vol. Inf.

THE following proclamation was issued by the members of Congress who were then among the fugitives who were in Bethlehem :

"BETHLEHEM, Sept. 22nd, 1777.

"Having here observed a diligent attention to the sick and wounded, and a benevolent desire to make the necessary provision for the relief of the distressed as far as the power of the brethren enables them, we desire that all continental officers may refrain from disturbing the persons or property of the Moravians in Bethlehem; and, particularly, that they do not disturb or molest the houses where the women are assembled.

"Given under our hands at the place and time above mentioned.

JOHN HANCOCK.

WILLIAM DUER.

SAMUEL ADAMS.

CORNELIUS HARNETT.

JAMES DUANE.

RICHARD HENRY LEE.

NATHAN CROWNSON.

HENRY LAURENS.

NATHANIEL FOLSOM.

BENJAMIN HARRISON.

RICHARD LAW.

JOSEPH JONES.

ELIPHALET DYER.

JOHN ADAMS.

HENRY MARCHANT.

WILLIAM WILLIAMS.

"Delegates to Congress."

On October 7, 1777, the wounded from the battlefield of Germantown began to arrive and by the 22nd there were four hundred patients in the hospital, and fifty in tents, and the doctors announced that they could accommodate no more.

*An address delivered before the Judson Deland Medical Society, January 8th, 1899.

But on the 28th of October, Hospital Commissary Hugh James arrived with orders from Doctor Rush to provide immediately for the reception of one hundred more patients. To fulfil this order they were obliged to put up a number of frame buildings for the doctors, attendants, and guard, so that the sick might be placed in the more substantial houses.

In December the Hospital became terribly over-crowded and remained so into the spring. The ventilation was poor and the place became filthy and putrid fever claimed many victims. There were seven hundred patients crowded at one time into the house of the Single Brethren, which had been previously considered over-crowded by four hundred patients. One reason for this over-crowding is pointed out by Doctor Shippen in a letter to Congress wherein he states that many soldiers who were entirely recovered were obliged to remain in Bethlehem for want of suitable clothing to return to the army in.

Mr. Jordan thinks that the number of deaths in the Bethlehem hospital during this second occupation may be computed at upwards of five hundred. Among those who died were, Doctor Joseph Harrison, Doctor Aquila Wilmot, and Hospital Steward Robert Gillespie, of the hospital staff. The two latter were buried in the "Stranger's Row" of the Moravian cemetery. The reasons for this high rate of mortality are not far to seek. Mr. Jordan gives us the statements of three of the surgeons connected with the hospital, namely, Doctors William Smith, William Brown, and Moses Scott.

Doctor Smith states, "that he had known from four to five patients die on the same straw before it was changed, and that many of them had been admitted only for slight disorders. Of the eleven junior surgeons and mates, ten took the infection, most of them dangerously so, and one, Dr. Joseph Harrison, had died, and of the three hospital stewards, two had died and the third narrowly escaped. Owing to the crowded wards, and the want of almost every necessary, it was impossible to prevent an infection, and that the sufferings of the sick could not be attributed to negligence or inattentions of the surgeons and physicians."

Doctor William Brown says: "That when the hospital was opened it was many weeks without so necessary articles as brooms, and that at last he was obliged to have them taken from the inhabitants of the town."

Lastly, Doctor Moses Scott writes that during the three months which he spent in the hospital, "between eight and nine hundred patients were admitted, thirty-four of whom died, and that owing to the moving of the hospitals in the beginning, it was almost impossible to make exact returns of the sick and wounded. Upon computation, allowing four feet for each patient, we concluded that the house would hold three hundred and sixty without crowding."

Doctor James Tilton¹¹ on his way home from the hospital at Princeton on sick-leave, stopped for a short time in Bethlehem, and he has left us the minutes of an interesting conversation which took place between himself and

¹¹ Economical Observations of Military Hospitals.

several of the surgeons of the Bethlehem Hospital, as follows: "During my stay, it was natural to enquire into the state of their hospital. The method I took was to propose a competition, not whose hospital had done the most good but whose hospital had done the most mischief. I was requested to give an account of Princeton hospital. I stated with all the exaggeration I could with truth, not only an affecting mortality among the sick and wounded soldiers, but that the orderly men, nurse and other attendants on the hospital were liable to the infection, that I had myself narrowly escaped death; and that five other surgeons and mates had afterwards been seized. I was answered that the malignancy and mortality of Princeton Hospital bore no comparison with theirs; that at Bethlehem not an orderly man or nurse escaped, and but few of the surgeons; that one surgeon, Jos. Harrison, a fine young fellow, distinguished for his assiduity, had died, and to give me some idea of the mortality of this hospital, one of the surgeons asked me if I were acquainted with that fine volunteer regiment of Virginia, commanded, I think, by Col. Gibson. I answered I knew it only by reputation. He then went on to say that forty of that regiment had come to that hospital, and then asked me how many I supposed would ever join the regiment? I guessed a third of the fourth part. He declared solemnly that not three would ever return, that one man had joined his regiment; that another was convalescent and might possibly recover, but that the only remaining one besides, was in the last stage of the colliquative flux and must soon die. I was obliged to acknowledge the hospital at Bethlehem had been more fatal than that at Princeton."

Doctor Shippen summed up the causes of the mortality at Bethlehem to be in his opinion, "The want of clothing and covering necessary to keep the soldiers clean and warm, articles at that time not procurable in the country; partly from an army being composed of raw men, unused to camp life and undisciplined; exposed to great hardships, and from the sick and wounded being removed great distances in open wagons."

In the beginning of 1778 the authorities began the removal of the hospital and by the 8th of April the final order for its closure was promulgated. The fever had wrought great mischief to the poor Moravians, seven of the Single Brethren having died during the occupancy of their house, also a son of the Rev. Mr. Ettwein.

Mr. Jordan quotes the report of General Lachlan McIntosh, who superintended the removal of the hospital, to General Washington. This is the only report of the hospital found in the archives at Washington. It states that from January 1st to April 12th, 1778, eighty-one soldiers died, twenty-five deserted, one hundred and twenty-two were discharged and sent to the army; eleven were at the shoe factory (in Allentown), two were attending on sick and wounded officers, and all the rest removed from the hospital."

At Lititz, another Moravian village in Lancaster County, Pennsylvania, a Continental army hospital was established and maintained from December, 1777, until August, 1778.

Mr. Jordan's account of it is fully as interesting as is his account of the hospital at Bethlehem.

Doctor Samuel Kennedy arrived at Lititz on December 14th, 1777, with a written order from General Washington for the inhabitants to provide accommodations for two hundred and fifty sick and wounded soldiers. It was again the single brethren upon whom the blow fell most heavily. They were obliged to vacate their house in spite of many vain expostulations by Bishop Hehl.

On December 19th, eighty sick arrived and the following day fifteen wagon loads more were received. There were but two doctors attached to the hospital. Putrid fever broke out in a few days and both the doctors were prostrated with it, and Doctor Adolph Meyer, the Moravian's physician, had to fill their places until relieved, ten days later, "by a doctor who was a German from Saxony."

There were seven deaths in ten days from the fever, a pretty high mortality, and in January, 1778, it became epidemic, and five Moravians, who were serving as volunteer nurses, and the assistant pastor of the congregation, the Rev. John J. Schmick, died of it.

In January Doctor William Brown, one of the most capable medical officers in the Continental army and author of the first American pharmacopeia, was placed in charge of all the Continental army hospitals in Letitz and its vicinity, and Doctor Francis Allison, Jr., was associated with him.

In March, 1778, the inhabitants, to their great consternation, heard that Doctor Shippen contemplated the establishment of a general hospital at Lititz. The Rev. Mr. Ettwein wrote to General Washington imploring him to countermand any order to that effect that might have been issued.

Washington wrote to him on March 28th, from Valley Forge, to the following effect:

"Sir—I have received your letter of 25th, by Mr. Hasse, setting forth the injury that will be done to the inhabitants of Lititz by establishing a general hospital there—it is needless to explain how essential an establishment of this kind is to the welfare of the army, and you must be sensible that it cannot be made anywhere without occasioning inconvenience to some set of people or other. At the same time it is ever my wish and aim that the public good be effected with as little sacrifice as possible of individual interests, and I would by no means sanction the imposing any burdens on the people in whose favor you remonstrate, which the public service does not require. The arrangement and distribution of the hospitals depends entirely on Dr. Shippen, and I am persuaded that he will not exert the authority vested in him unnecessarily to your prejudice. It would be proper, however, to represent to him, the circumstances of the inhabitants of Letitz, and you may, if you choose it, communicate the contents of this letter to him.

I am sir,

Your most obed't ser't,

GEO. WASHINGTON."

Bishop Hehl wrote to Doctor Shippen about the matter and was answered as follows :

"Sir—I am so much affected at the very thoughts of distressing a society I have so great an esteem for, that you may depend upon it I will not put into execution the proposal of removing the inhabitants of Lititz, unless cruel necessity urges, which at present I don't imagine will be the case. If we should fix the General Hospital and take more room in your village, it shall be done in a manner the least distressing and disagreeable to your flock that is possible, of which I will consult you. I am sir, your and the congregation's affectionate and very humble servant,

W. SHIPPEN."

"Mauheim, 9 April, 1778."

However the necessity for removing the inhabitants of Lititz out of their homes never arose.

General McIntosh reported of this hospital, that from February 1st to April 20th, 1778, "264 wounded and sick soldiers had been admitted to the hospital, that 142 had been discharged and sent to camp; 83 had died and deserted, and 39 were under treatment."

This report also stated, "The accounts of the first doctors cannot be found. This is a convenient and pleasant place for a hospital, and is so near Lancaster, that the same office and surgeons may attend both. The hospitals at Schaefferstown (Lebanon) and Ephrata should be renewed here, as both are very inconvenient."

On the 21st day of August the surgeons were ordered to make preparations for the removal of the patients, and on the 28th they began sending them to Lancaster and Yellow Springs. During the occupation of the house of the Single Brethren, one hundred and twenty soldiers had died in it.

In May, 1776, Congress passed resolutions establishing an army hospital in Virginia, and appointing Doctor William Rickman, Physician and Director General of it. The hospital was located in Williamsburgh and it had been at first intended to convert the college buildings to hospital uses, but finally he took a building known as "the palace," for that purpose. The French troops used the college later. Doctor James Tilton was left at Williamsburgh in charge of the American sick and wounded after the surrender of Lord Cornwallis at Yorktown, when General Washington with his army went north. The French troops remained cantoned at the same place. He writes (*Observations on Military Hospitals*) of their hospital, as follows:

"Being thus in a French garrison I had some opportunity of observing the French practice and management of their sick. In passing the wards of their hospital, their patients appear very neat and clean, above all examples I had ever seen. Each patient was accommodated with everything necessary even to a night cap. Nevertheless, they were not more successful than we were. Even their wounded, with all the boasted dexterity of the French to aid them, were no more fortunate than ours. I was led to attribute their failure principally to two causes. For ease and convenience, they had contrived a common necessary for their whole hospital, the college, a large

building three stories high, by erecting a half hexagon, of common boards, reaching from the roof down to a pit in the earth. From this perpendicular conduit doors opened upon each floor of the hospital; and all manner of filth and excrementitious matters were dropped and thrown down this common sewer into the pit below. This sink of nastiness perfumed the whole house very sensibly and, without doubt, vitiated all the air within the wards. In the next place their practice appeared to me to be very inert. When passing their wards with the prescribing physicians, I observed a great number of their patients in a languid and putrid condition and asked occasionally if the bark would not be proper in such cases? The uniform answer was no, too much inflammation. And when they had attended my round of prescription and saw me frequently prescribing the bark, in febrile cases, and even for the wounded, they lifted up their hands in astonishment. Few or no chemical remedies were employed by them. One of their regimental surgeons declared that he never used opium. Their hospital pharmacopeia consisted chiefly of ptisans, decoctions, and watery drinks, fitted only for inflammatory disorders. All these circumstances considered, satisfied my mind why their ample accommodations gave them no advantage of us in the result of practice. I was the more surprised as Doctors Cost and Borgelli appeared to be men of science, well qualified to make research."

In 1780 the French fleet arrived at Providence, Rhode Island, on their mission of aid to the Americans. Doctor Craik was deputed by General Washington to prepare hospitals at that point for the proper reception of any of the French King's officers and men who might be in need of medical assistance on their arrival in this country. General Washington furnished Doctor Craik with the following letter to the Governor of Rhode Island.

"HEADQUARTERS, MORRISTOWN, May 25, 1780."

"SIR:—Dr. Craik, assistant director general of the hospitals in our army, will have the honour of delivering this letter to your excellency. This gentleman comes to Providence to provide hospitals and such refreshments as may be wanted in the first instance for the sick, which may be on board the fleet of His most Christian Majesty when it arrives. The Doctor will consult with your excellency about the houses which will be necessary and proper upon the occasion, and on the best mode of obtaining the refreshments which he may think it necessary to provide. He will stand very materially in need of your good offices in this interesting business, and in a particular manner will want the assistance of the State, either to advance him money or their credit, for laying in the requisite supplies. This I am persuaded they will most readily give him, from an earnest desire to afford every possible comfort and accommodation to the sick of our good and great ally, who have the strongest claim to our attention and generosity. Your excellency will be pleased to have the account of disbursements incurred on the occasion, kept in a clear and particular manner, which will be punctually paid by Mons, Carne, Commissary at War to His most Christian Majesty; or Mr. Damour.

his consul, in gold or silver, or in bills of exchange on France, on the arrival at Providence. One of these gentlemen will be there in a short time.

"I have the honour to be with highest respect your excellency's most
Obedient servant

GEORGE WASHINGTON."

"To His Excellency

GOVERNOR GREENE."

The citizens of Providence objected most strongly to the college buildings being taken for hospital purposes and finally the Assembly authorized the use of the buildings "on the farm in Bristol lately belonging to Wm. Vassal, Esq.," instead.

Not much contemporary literature concerning the medical affairs of the continental army was written but there remain two communications by distinguished medical men which are particularly worthy of mention. I have several times in the foregoing pages quoted from Doctor James Tilton's *Economical Observations on Military Hospitals*. This pamphlet contained the author's views on the principles that should guide the sanitation of an army and the regulation of its hospital. The work is very practical and full of common sense. He adduces arguments derived from his own personal experience as an army surgeon to support the various contentions which he makes.

The other literary contribution which I consider most noteworthy is Benjamin Rush's pamphlet entitled "Directions for Preserving the Health of Soldiers," which was published by order of the Board of War. It is "Addressed to the Officers of the Army of the United States" and contains many excellent sanitary rules in a brief but clear form, explaining clearly their reasonableness and pointing out their utility. Many of the points he lays stress on are similar to those emphasized by Tilton. No one interested in military hygiene could more profitably devote the short time necessary for their perusal than to a careful reading of these two articles. They are as full of meat as a nut and their rules are just as applicable to-day as they were one hundred years ago.

Calomel After Acids.—Dr. Govane, according to the Medical and Surgical Bulletin, made a very interesting report on calomel to one of the Italian societies. He finds that calomel in contact with chlorids, minerals and organic acids in the test tube does not form corrosive sublimate. This is also true of this substance in the dog's stomach as shown by means of gastric fistula. Experiments on sixty children by administration of calomel followed by lemonade made by muriatic, citric or tartaric acid and by strongly salted bouillion, milk and orange juice produced no disagreeable effects whatever.
—*Cleveland Journal of Medicine*.

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Glaucoma :—Amblyopia. (Abstract.)*

By WILLIAM CHEATHAM, M. D., Louisville, Kentucky.

CASE 1. A gentleman operated upon in New York for cataract six years ago consulted me saying that his glasses had given him some trouble. With slight change in the astigmatic part of his glass his vision was $\frac{2}{15}$ + to $\frac{2}{10}$. With distance glasses he could read Jaeger No. 1, the finest newspaper print, at arm's length. Another peculiarity was that his vision was telescopic; he saw objects as if looking through a long tube. On walking into a room, if his eyes were not directed downward, he would walk into low furniture, or run against anything the height of his head, above the center of vision. The ophthalmoscope showed chronic glaucoma, with deep cupping of the optic nerve. There was no pain, no dilated pupil, no blurring of central vision, yet this destructive disease was in progress.

There are three forms of optic nerve cupping, viz: the physiological which is central, and the edges especially on the nasal side may be quite abrupt, which does not involve the whole of the optic nerve. The cupping seen in atrophy involves the whole nerve, but is shallow. The cupping of glaucoma involves the whole of the head of the nerve, and its edges are abrupt. An iridectomy in this form of glaucoma promises but little. We have to depend upon the local use of myotics, the best I think is eserine, which should be used often and in weak solutions as strong solutions if long continued might excite iritis. I gave this gentleman the following:

R Eserine, 1-16 gr.
 Philocarpin muriat, 1 gr.
 Aqua, 3 ss.

Even this weak solution keeps his pupil contracted fourteen to sixteen hours. Glaucoma, sub-acute or chronic, is a treacherous disease. Glaucoma, acute, is usually amenable to early surgical treatment.

Attention is especially called to the progress of the disease in this man who is an exceedingly close observer. An involvement of peripheral vision (although contracted visual field is one of the constant symptoms of glaucoma) with an abnormal acuteness of central vision, (such acuity of central vision is extremely rare even in a normal eye) and the ability to read small print at arm's length with his distance glasses, showing that he has accommodation at fifty-nine years of age with his crystalline lens gone. To do this there must be some advancement of his choroid and retina.

CASE 2. Another gentleman consulted me with V. R. 20-20, V. C. 20-50; no improvement with glasses; both optic nerves cupped; glaucoma sub-acute. He had opacities in both lenses; incipient cataract. I gave him eserine and pilocarpine. His urine was normal but excessive in quantity. He reported to me every two or three weeks, his vision gradually failing, the lenses becoming more and more involved. The drops kept the tension of his eyes about normal. Without my knowledge he consulted an oculist in New

*Read before the Louisville Clinical Society.

York, who told him he had "incipient cataract." I advised the patient when east again to see the same oculist as the glaucoma had been overlooked. On his next visit the doctor repeated his former diagnosis; the patient asked him to "look again," when he discovered the glaucoma.

I continued the use of eserine and pilocarpine until the left cataract was nearly mature, then performed iridectomy in each eye. After a rest of several weeks I removed the cataract from his left eye. A thick membrane in the field of the pupil resulted, which was needled. To-day, with a proper correcting glass, he has vision of $\frac{20}{15}$, or more than normal.

This case is reported to show what vision can be secured in such instances. His visual field is but little involved. He still uses the eserine and pilocarpine especially in his right eye from which the cataract has not been removed.

CASE 3. A gentleman complained of loss of sight, distant vision being reduced to 1-5 of perfect in each eye, not improved by glasses. His history and the appearance of the optic nerves pointed to the overuse of tobacco and alcohol, to which he confessed. Two methods were used to verify the diagnosis. First I had him inhale a few drops of nitrite of amyl, and in a minute tested his vision and found it had increased from 1-5 to 20-40, or half of perfect. This lasted but a short time. Second I gave him hypodermatically nitrate of strychnine gr. 1-30 which in twenty minutes brought his vision to 20-40. This was not permanent, yet it verified my diagnosis.

The prognosis in this case is favorable if his habits can be corrected and if strychnine nitrate be given to the limit; the nitrate should be used as it is a neutral salt and less likely to produce abscess at the site of insertion. I have given him $\frac{3.9}{120}$ of a grain in gradual increasing doses before getting the physiological effect; usually it is reached with from $\frac{1.0}{120}$ to $\frac{1.5}{120}$ of a grain. I speak of $\frac{1}{120}$ gr., as the solution used is grs. iv to aqua $\bar{3}$ i, each drop therefore containing $\frac{1}{120}$ of a grain.

A curious feature about this trouble is that after patients recover they frequently return to their old habits with but infrequent relapses. We know the pathology to be involvement of the bundle of nerve fibres which are distributed to the macula lutea, all the others escaping at first; there is then central scotoma. The name retrobulbar neuritis is, I think, an improper one.

DISCUSSION.

Dr. S. G. Dabney.—Glaucoma and cataract do not frequently coexist. Such cases, however, do occasionally occur. I have one under treatment now, a very stout woman aged fifty-five years, who has a cataract in one eye which is ripe and ready for operation, and an incipient cataract in the other. Last summer she had decided glaucoma in the eye which is now ready for operation. I shall do an iridectomy preliminary to the extraction. An interesting feature is that she is decidedly gouty, and modern pathology leads one to look upon glaucoma as a manifestation of gout. It seems clearly demonstrated that the underlying cause is in the general system.

It is unusual to find the field of vision so concentrically contracted in glaucoma as stated by Doctor Cheatham. As a rule the field of vision is not contracted equally in all directions. It generally begins in the nasal half of the field, and rarely effects the vision as he mentioned. The condition described is usually seen in atrophy of the optic nerve or in retinitis pigmentosa. But for the excellent central vision it would be suggestive of chronic atrophy of the optic nerve, which is often mistaken for glaucoma.

In regard to the last case: It has always been a puzzling pathological question as to why alcohol and tobacco should produce such a curious effect upon the central bundle of fibres of the optic nerve. It is strange that only this bundle of fibres should be affected in the so-called alcohol and tobacco amblyopia.

With further reference to cataract: I will briefly mention a case in which there were two features of interest. First the remarkable hereditary tendency to cataract, second the slowly increasing opacity, beginning in the center of each lens and causing practical blindness long before operation could safely be done. The patient's father, mother and brother had cataract, and his sister had slight opacities in each lens. I did an iridectomy, rubbing the crystalline lens—the so-called Forster operation—to hasten the ripening of the cataract, so as to make him sooner ready for the operation. This did not act satisfactorily as it had no especial effect upon the progress of the cataract. His brother had the same operation performed in Cincinnati, Ohio, with similar result. In each case the maturing of the cataract was exceedingly slow. I operated by extraction upon the gentlemen three weeks ago, and his sight is now nearly perfect. He was practically blind for two or three years, but the operation will give him a vision of more than $\frac{2}{10}$, which is the accepted perfect standard.

Chattanooga Medical College.—The tenth commencement exercises of this school took place on March 21st, and was a very creditable affair. Dean Cobleigh stated that the session just ended marked the close of the first decade and was the most prosperous in the college history, that nearly two hundred students had been enrolled in the college class during the past term, and that, with the completion of the new city hospital the outlook of the institution was particularly promising.

HOMEOPATHY.

Take a little rum
 The less you take the better;
 Pour it in the lakes
 Of Wener or of Wetter.
 Dip a spoonful out,
 And mind you don't get groggy;
 Pour it in the lake
 Of Winipisiogee.

Stir the mixture well,
 Lest it prove inferior;
 Then put a half drop
 Into Lake Superior.
 Every other day
 Take a drop in water;
 You'll be better soon—
 Or at least you oughter.

—Bishop Doane.

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Editorial.

A DEPARTMENT OF HEALTH.

The importance that any branch of science attains in the minds of the people depends entirely upon the teaching and efforts of those who are skilled in that branch. While medical men realize the great importance that sanitation and quarantine bear to the public weal, their importance seldom enters the mind of even intelligent men in other professions, for they are giving their thought and energy to the advancement of the work they have espoused and leave matters pertaining to health to the doctors. The manufacturer is absorbed in the effort to make his products as nearly perfect as possible and with the least expense, and would pay little or no attention to the disposal of refuse material did not the student of hygiene keep his eye upon him. The financier, the lawyer, the teacher, the soldier, the farmer, all strive for the advancement of the work in which they are engaged. The same should be true of the doctor. The medical profession will never attain its proper place except through the efforts of its own members. People in other callings in life have their own affairs to look after and leave matters pertaining to health to medical men.

There is nothing more important to the individual or the nation than health. There is nothing more demoralizing to the commercial activity of a city or state than an outbreak of infectious disease. Every one will acknowledge this, and yet it seems impossible to secure from those who have the making of the laws such enactments as will enable the board of health to effectively carry out their plans for the prevention of disease. Hundreds of thousands of dollars are appropriated for the education of the masses, and

very properly so, but in this State the paltry sum of \$2,000 a year is all that is set aside for the preservation of the health and lives of the people. There seems to be an opinion prevalent in the minds of the people that they should be expected to give attention to their own business only, and that in case of an outbreak of pestilential disease, it is the doctors' business (through an unremunerated board of health) to go to work and check the outbreak. They are interested in stamping out the disease only because its presence endangers their individual lives or injures their business.

The public health is of sufficient importance to entitle it to equal recognition with agriculture, the post-office, the army, the navy, or any of the affairs of state. There should be in the Cabinet of the President a secretary of health who should be the head of a great army organized to resist the unseen foe, which has declared perpetual war against us, and which is continually threatening our shores. The affairs of health, especially now since our new and closer relations with the fever-infected West Indies, Hawaii with its leprosy and the Philippines with their plague, are sufficient to occupy the entire time and attention of such an officer. This work should not be left to men who receive no remuneration for their services. The work is in the interest of the country at large, and though the function of the officers of the health department is to save life instead of destroy it, they should receive as liberal compensation as the officers of the army and navy.

Our law makers at Washington are absorbed in the problems of the standard of money, the tariff and imperialism, and have no thought for such every day matters as the public health. Therefore, if they are to be brought to such a realization of the great importance of the matter as to cause the creation of a Department of Health it must be done through the organized effort of the medical profession, individually and collectively. National and State associations must approach Congress with formal resolutions, and individuals must take occasion to discuss the matter with Senators and members of Congress whenever an opportunity presents itself. If this be done it will not be long ere our profession will take its proper place in the estimation of the people and we will have a representative at the elbow of the President whose presence will assure the people that every precaution is being taken to prevent the entrance of foreign pestilence or the spread of epidemics at home.

SHOULD THE CLERGY PAY FOR MEDICAL SERVICES.

We occasionally see this question brought up for discussion either by an individual, who perhaps has had the tender of a fee from some minister better off, or more punctilious than his brothers, or commented upon in the journals in a purely abstract way. From a period so remote, that the memory of man runs not to the contrary, it has been an almost universal custom of the medical profession to bestow its services upon the preacher and his family free of charge. Such a practice is an eloquent testimonial of the high regard in which our profession holds that of the clergy, though the

busy and irregular life of the doctor interferes with his religious exercises, and like William McClure many of them are but rarely seen at kirk. On the other hand the ministerial profession has always been a staunch friend of the physician, and no class of our patients call upon us with more alacrity in cases of sickness, albeit now and then they seem to have an ineradicable weakness for attaching their signatures to various and sundry laudatory certificates of patent and proprietary medicines. This tendency is sometimes so strongly developed that the reverend signer throws in a photograph and a benignant, clerical countenance occasionally adds variety to the dull monotony of an advertisement of a "nervine," "blood purifier" or what not. This idiosyncrasy aside however, the fact remains that the frequent association of these professions in the midst of scenes of human suffering has always been a bond of sympathy between the two. The question of receiving a monetary recompense for services rendered by the doctor to the minister cannot be arbitrarily determined. Some clergymen receive large salaries or are otherwise well-to-do, and there would certainly be no reason why a physician, whose income perhaps is much smaller, should refuse a medical fee from a man both able and willing to pay. In fact, it may be safe to say that the practice of accepting gratuitous service has many and growing exceptions among those members of the clerical profession who are financially able to pay a doctor bill, chiefly because these men do not like the idea of resting under onerous obligations and doubtless also because the spirit of commercialism is getting to be more marked in every sphere of life. Well paid ministers being in the great minority however, we feel confident in saying that the large majority to whom the payment for medical services would be a veritable hardship, will continue to receive the best skill and attention of the medical profession without any thought of a monetary remuneration.

Distilled Water.—According to the wise man of the Medical Age, the way to prolong life is to use lots of distilled water daily, with two or three doses each day of 15 drops of dilute phosphoric acid. We do know that this acid aids digestion more than any other—at least, it does so in a test tube. He also says that we begin gelatinous and end osseous, though we should prefer to say calcareous for evident reasons. In the main, he seems to have thrown out a big chunk of solid truth. He advises against the use of foods containing lime salts, and these are bread and also meats and the cereals generally. As we become older, this makes our diet fruits, distilled water and dilute phosphoric acid, with a slight mixture of the undesirables.

Treatment of Bedsores.—Studies in recent years show that proteids, and especially peptones, in solution stimulate granulation. In other words, it is local feeding of badly nourished areas. We have no special preference for these preparations. Bovinine gives excellent results. In Blockley Hospital, where bedsores were once so numerous, now under this treatment we have scarcely one.

Reports of Cases.

Death Following Injection of Antitoxin.—Mary K., age 4 years, on Nov. 29th, '98, was chilly and fretful and feverish, the next day she was worse and on the 1st of Dec. I was sent for to see the child and on examination found a well developed case of diphtheria but the fever was not very high, breathing was good and pulse not very much accelerated. But the child would not take food without much coaxing. I gave some small doses of calomel and had the throat mopped out with a salution of Pot. Chloridi. Tr. Ferri and Acid Hydrochlori in Glycerine every 2 hours, and enough turpentine was rubbed on the neck at the angle of the jaw to produce redness a few vesicles, and medicated steam inhalations were given every hour. The child was fed on milk and egg-nogs. Next morning I found the child resting comfortably and wanting to take food and part of the membrane was coming off. We all were much encouraged and felt safe, perfectly safe in keeping up the same treatment and did not use the antitoxin which I had with me. The parents did not want a hypodermic used and I thought the child would get along without it. Next morning, Dec. 3rd, I was called to see the child and found it very much worse, breathing VERY FAST and quite purplish around its mouth. At once gave a hypodermic of nitro glycerine $\frac{1}{200}$ gr. and some egg-nog and the steam inhalations were kept up right along. I insisted on the antitoxin now and very reluctantly they consented. I gave 750 unites No. 3 green label. In less than three minutes the respirations began to slow down and in less than 30 minutes the child was dead. What caused death?

W. T. MCANALY, High Point, N. C.

A Lesson in Surgery.—As we grow in years and in experience, incidents and observations of the past crowd upon us, impressing us with the meagerness of our knowledge. Such an incident recurs to me, which came in the first years of my work.

The patient, a colored man, came into my office at noon, and held up to me a bleeding left hand, with half the last phalanx of a finger missing. With his right hand he was diligently searching his pockets, and, after diving into several, produced, from amongst tobacco trash, and other things, the severed portion, and asked what I would charge to "sew it on."

The accident had occurred while cutting feed for his horses; the finger slipping too far in the trough of the cutting box, and coming beneath the knife.

Now, I was quite hungry for my dinner, but was far hungrier for some surgery, and also for a fee. That the end would grow back to the finger, being thus completely severed, and in its dirty condition, did not occur to me, and the word amputation had a high and mellow sound that caught me mightily. Therefore, I told him, with a world of wisdom in my voice, that the cut finger must be taken off at the distal joint, and pictured most graphically the beautiful and useful stump that I should make for him; closing

my remarks with the request that he go to his employer and bring me a written order for the fee. This he agreed to do, and disappeared, having dropped the piece of finger again into his pocket.

I made all necessary, and no doubt a great many unnecessary, preparations, and waited for two long hours or more, with the emptiness of my stomach quite prominent. However, the patient did not return, and finally, in disgust and chagrin, I put up my tools, and left my office.

More than a year passed, and while I often thought of the case, I never saw the patient, until he one day again walked into my office. Recognizing him at once, I asked to see his hand, which he held up, in the possession of five good, honest fingers; one of which had a slight encircling scar, near its end. In surprise, I began to question him, and in explanation, he said: "Well doctor, I'll tell you, I didn't have any money, and I could not find the Boss, and so when I got off 'round the corner down here I just took that piece of a finger out and stuck it back on, and tied my handkerchief around it, and it grow'd fast."

H. S. LOTT, M. D.

Salem, N. C., 4-22-99.

Don'ts in the Use of the Stomach Tube.—Dr. A. L. Benedict (*American Medico-Surgical Bulletin*, June 25) concludes an article on this subject in the following manner: "(1) Don't use the stomach-tube simply because you want to be considered scientific and up-to-date. (2) Don't withdraw stomach contents for examination unless you are prepared to examine them. (3) Don't discard external means of physical diagnosis because you have a stomach-tube. (4) Don't expect too much from diaphanes, electric buzzers, buckets, complicated tubes, etc. All of these have their uses, but are available in very rare cases. (5) Don't pass the tube without first examining the mouth and throat, and also the heart and arteries, and at least inquiring as to pregnancy, piles, and other possible complications. (6) Don't pass the tube as a means of treatment unless you know precisely what you wish to accomplish with it. (7) Don't introduce a weight and bulk of water which you would consider injurious if swallowed. As a rule, do not introduce more than a pint at once, and never more than a quart. Don't be deceived by the ball-valve action of a particle of food or any other cause which may allow water to remain in the stomach. Make sure that you withdraw as much as you introduce, except that you may allow a little for leakage through the pylorus, or possibly for absorption. Remember that the more a stomach can hold, the less it ought to. (8) Don't imagine that the gastric douche will cure all the diseases of the stomach; you would laugh at a gynecologist who held such a view about the vaginal douche. (9) Don't imagine that a stomach is doing well until it can digest plain but varied diet without mechanical interference. Don't speak of a patient as cured until he can indulge in all the ordinary food without medical aid and without injury. (10) *Don't let the patient learn to pass the tube himself.* This rule holds for his benefit as well as yours. (11) Don't fail to use the tube or to have it used when the indications outweigh the contraindications."—*Medical Record*.

News and Items.

The Medical Society of North Carolina meets in Asheville at the Battery Park Hotel May 30th.

Board of Medical Examiners will meet on May 25th in Swannanoa Hotel, Asheville, and applicants for license are requested to be on hand promptly.

Dr. Djemil-pasha recently made a laparotomy on the sister of the Sultan for stenosis of the pylorus and the success of the operation is proving quite a force in breaking down the barriers against the treatment of Mussulman women by physicians.

The parties implicated in the army beef scandal may each say with Hamlet's uncle: "My offense is rank. It smells to Heaven."

Hypodermic Needle and Tetanus.—A dirty hypodermic needle has frequently produced tetanus. Care should be taken that hypodermic injections be made with a sterile instrument and the place of injection cleansed carefully.

An Application has been made, it is said, by a North Dakota packing company for permission from the New York Board of Health to sell horse meat in that city. The claim is made and supported by statistics that equine flesh is wholesome, and it is also claimed by the company that more care is exercised in the slaughtering, etc., than is usual in the preparation of beef.

Centaur Company Wins.—In the United States Circuit Court, St. Louis, for the Eastern District of Missouri recently Judge Adams, in the case of the Centaur Company of New York, manufacturers of Castoria, against S. W. Eslinger, of St. Louis, enjoined Eslinger from selling Castoria in any packages, wrappers, labels or bottles which could possibly be mistaken for then Centaur Company's Castoria. The genuine Castoria, which is put up by the Centaur Company, has on every package the signature of Charles H. Fletcher in script, and on the package put up by Eslinger, which was enjoined by Judge Adams, instead of the signature of Charles H. Fletcher, appear the words Pitcher's Baby Castoria, written in script and placed in such a position as to mislead the purchaser, who is looking for the signature, which appears on the genuine. The injunction in this case was an eminently proper one.

To Plug the Posterior Nares.—Twist up from three to six loops of stout thread twelve inches or more in length, leaving one thread hanging, the rest being waxed so as to form a rigid mass, which can be inserted into the nasal cavity as far as the posterior wall of the pharynx. The extremity is seized by means of a forceps through the mouth, and brought outside of the lips. The thread is then separated and a cotton tampon attached to fill the posterior nasal orifice. This is placed in position by drawing upon the threads which project from the nostril with the aid of a finger in the mouth. Leave hanging in the pharynx an end of the thread with which to extract the tampon.—*Stephen, Medical Record.*

Modern Treatment of Acute Coryza.—Dr. Rice, in the *May Post-Graduate*, outlines his routine treatment for colds as follows: First, he uses a solution of cocaine, not stronger than 5 per cent., and five minutes later insufflates a combination of six parts of compound stearate of zinc with boric acid and one part each of the compound stearate powder with alum and with cocaine. The patient is instructed to use this powder three times a day, blowing it in, while holding the breath, at the end of a deep inspiration. He is also warned not to blow his nose repeatedly, as serum will be formed in the nostrils as fast as expelled. Antiseptic washing is indicated in the later stage only. Laxatives, phenacetine, salol, etc., may be employed by way of general treatment.—*Pub. Health Journal*.

The Gullibility of the Public.—According to the *Boston Medical and Surgical Journal* for January 19th, the Practitioner, in an interesting account of Sir William Jenner, in which his professional honesty and even bluntness is commented upon, gives the following excellent anecdote of another distinguished physician who had certain qualities which Jenner lacked. The story is taken from the St. Bartholomew's Hospital Journal: "Dining one evening in the company of some medical men, among whom was Dr. Martin, then physician to Bart's, Sir William Gull declared that some amount of quackery was essential to success in medicine. 'It is an example of the old saying,' he averred, 'Populus vult decipi.' The host asked for a terse English equivalent. 'Oh that's easy enough,' said Dr. Martin quickly: 'The public like to be gulled!'"

A Pessary Retained Forty Years.—A correspondent of the *Boston Medical and Surgical Journal* recites the following remarkable history which was reported at the January, 1899, meeting of this local society: The reporter removed a pessary from the vagina of a woman who was over seventy years old. It was a smooth, hollow sphere of wood, but, like the earth, "a little flattened at the poles." Its lateral circumference was $6\frac{1}{4}$ inches; its vertical, $7\frac{1}{2}$ inches; and its weight 482 grains. It was of one piece of wood, with a cover one inch across.

It was removed on account of the offensive discharge. It was so firmly imbedded the doctor had much difficulty in taking it out. After a few days the discharge ceased, and at the time the doctor exhibited the instrument he said "she was as well as any woman."

This pessary was first applied by a distinguished surgeon, who died in 1863, but who removed from this vicinity in 1858, and did not practise here after this latter date; consequently it had been certainly worn forty years, and perhaps longer. Once only during this long period had it been removed, but was at once replaced. Some years after its application she married, and lived happily with her husband for nearly a quarter of a century. He died without posterity. The cause of his death was not stated. This incident shows how absolutely necessary is the *early* removal of an irritating pessary. Had this one remained in its habitat another forty years a serious, perhaps fatal, sepsis might have developed.

This correspondent very properly signed himself "Veritas."

Book Reviews.

Materia Medica for Nurses.—By EMILY A. E. STONEY, Graduate of the Training School for Nurses, Lawrence, Mass. ; late Superintendent of the Training School for Nurses, Carney Hospital, South Boston, Mass. Handsome octavo volume of 300 pages. Cloth. Price, \$1.50 net. Published by W. B. Saunders, Philadelphia.

The present book differs from other similar works in several features, all of which are intended to render it more practical and generally useful. The subject matter is arranged in alphabetical order, which not only renders it more convenient for study as a text-book, but also adds materially to its value as a work of reference for ready consultation.

The general plan of the contents follows the lines laid down in training schools for nurses, but the book contains much useful matter not usually included in works of this character. The consideration of the drugs includes their names, both English and Latin, their sources and composition, their various preparations, physiologic actions, directions for handling and administering, and the symptoms and treatment of poisoning.

The Appendix contains much practical matter, such as Poison-emergencies, Ready Dose-list, Weights and Measures, etc., as well as a Glossary, defining all the terms used in *Materia Medica*, and describing all the latest drugs and remedies, which have been generally neglected by other books of the kind. The work will be found extremely practical and absolutely up to date.

A Manual of Nursing in Pelvic Surgery. By LEWIS MCMURTRY, A. M., M. D., Professor of Gynecology in Hospital College of Medicine, Louisville, Ky. Published by John P. Morton & Company, Louisville, Ky.

This little volume of ninety pages contains much that is interesting and instructive to the physician as well as the nurse. The necessity for cleanliness and strict attention to details in preparing for an operation is impressed upon the reader, and most explicit instructions are given. The chapters devoted to the care of these cases after surgical interference, as well as during the various complications which often arise, are particularly clear and practical and will prove equally as valuable to the surgeon as to the nurse. The publishers have done their part well and the book is attractively bound and printed.

The Office Treatment of Hæmorrhoids, Fistula, Etc., Without Operation, together with Remarks on the Relation of Diseases of the Rectum to other diseases in both sexes, but especially in women, and the abuses of the operation of colostomy. By Charles B. Kelsey, A. M., M. D., Late Professor of Surgery at the New York Post-graduate Medical School and Hospital, etc. New York: E. R. Pelton. 12 Mo., cloth, 68 Pages, price 75 cents, net. For sale by all booksellers or sent by mail on receipt of price.

This little volume is made up of three lectures by the author. In the first two he attempts to counteract the common idea that the treatment of these very common affections must necessarily be surgical and shows the relationship so often existing between rectal diseases and diseased conditions in neighboring organs. The last lecture is devoted to the discussion of the "Abuse of the Operation of Colostomy." Anything upon this particular branch of practice, from the pen of Dr. Kelsey will not lack of appreciative readers. The book is attractively bound and printed, and we can only regret that the writer did not increase the practical value of his work by giving his methods of treatment in more detail.

The Literary Digest of April 15th is an unusually interesting number, containing among many articles of merit an illustrated account of Nikola Tesla's recent experience in building inductive-coils for the development of great electrical pressure, and of the curious behavior of rarified air in high altitudes on the discharge into it of an electric current of a few million volts. He found under these conditions nitrogen uniting with oxygen and expresses "fear of a possibility" of the earth's atmosphere being ignited.

Johns Hopkins Hospital Reports.—Report on Pathology. A Review of the Pathology of Superficial Burns, with a Contribution to our Knowledge of the Pathological Changes in the Organs in Cases of Rapidly Fatal Burns. By Charles Russell Bardeen, M. D. Johns Hopkins Pres., Baltimore, 1898.

This report is based on the study of the postmortem findings in the cases of five children in whom extensive burns caused death in a few hours. The work bears evidence of the customary care and thoroughness that characterizes all the work done at this institution.

The Literary Digest, of May 6th, is a particularly interesting number of that always interesting publication. "Southern Opinion on Lynching" is expressed in quotations from a dozen Southern sources.

"Captain Coghlan's After Dinner Speech" receives courteous treatment, and "Race Feeling Against Anglo-Saxonism," as shown by utterances by German-Americans, Irish-Americans" and others, makes a chapter worth the reading, closing as it does by a statement from the *N. Y. Age* that "The white races are the most consummate and self-complacent hypocrites in all the history of the races."

Scribners for May contains a paper by Maj. Gen. Wood (Military Governor of Santiago) on "Santiago Since the Surrender" which tells as only Gen. Wood can of the great work done in transforming that death trap into one of the healthy cities of the world. The narrative is characteristic of the man and gives a good insight into the character of this strong American who is making history. The *Rough Riders in the Trenches*, by Gov. Roosevelt, Illustrated with many photographs, begun in Jan. to run through six numbers—requires no comment from us. Joel Chandler Harris contributes a Southern story—"How Aunt Minerva Ann Went into Business," which illustrates the inexplicable, kindly, family feeling that existed at the close of the war between the Southern planter and the recently freed slave. Much more this number of *Scribner* contains that is worthy of mention, but the above will suffice to indicate its value.

Physicians strive for hospital, dispensary and other public positions which bring them prominently before the profession as recognized authorities. They can gain a far wider and speedier recognition from the profession by *really good* work in a reputable medical journal.—*The Medical Council, Phila.*

Pelvic Congestion.—

- R Magnæ. sulphatis, ʒ viiss.
Ferri sulphatis, ʒ ij.
Manganesii sulphatis, ʒ ij.
Acid sulphur. dil, m xlv.
Aquæ destil, ʒ iv.

M. S. A tablespoonful before breakfast in a wineglass of water.—*Riforma Medica.*

Review of Medical and Surgical Progress.

The Working Tools of the Craft.

Excerpt from Editorial in *Dominion Medical Monthly*, Toronto, Canada, March, 1899.

Coincident with the onward progress of the medical art has been the advance in our knowledge of the cause of disease. As the practice of medicine and surgery has gradually but surely emerged from the darkness of charlatanism and empiricism and approached more nearly to the dignity of a science, the pressing demand for better facilities and better "working tools" has been met alike by the skilful instrument maker and the modern expert pharmaceutical chemist. The surgeon of to-day has at his command a full armamentarium of ingenious instruments of precision, originated by the physiological chemist as a result of the close study of Nature's laws and elaborated and perfected by expert pharmaceutical skill. Contrast for a moment the "working tools" of the physician of a hundred years ago with those of the practitioner of to-day; the bolus and nauseous decoction as against the dainty tablet and the palatable elixir. Up to this point the modern surgeon possesses no advantage over his medical confrère as far as his "working tools" are concerned; but here the parallel ceases. The surgeon when he needs a new scalpel for an important operation, examines the stock of a reputable dealer and personally selects an instrument of the best quality obtainable. He sees it, handles it, and assures himself that it is well made and properly tempered. If perchance the knife is not as represented he soon discovers it, and promptly discards it for one which is more satisfactory and reliable. The surgeon not only *personally selects*, but *personally employs* his instruments, and therefore cannot be deceived in them. But how about the equally important "working tools" of the physician, *i. e.*, the remedies which he orders for his patients? After a series of careful clinical experiments with various remedies of a certain character he comes to the deliberate conclusion that one particular preparation gives him the best therapeutic results and that it will hereafter become one of his trusted "working tools." Take for instance Pepto-Mangan "Gude," the value of which almost every modern practitioner is now familiar with. The physician has learned from experience just what this particular remedy will accomplish; he knows its advantages, limitations, indications and dosage, and prescribes it in properly selected cases, with full confidence in its action and effects. Just here, however, the physician *loses control of his "working tool"* unless he is positively certain that this prescription will be filled exactly as specified. It is, of course, manifestly impossible for the busy physician to personally follow up every prescription in order to assure himself that some inferior and more or less worthless substitute is not dispensed in place of the article prescribed, and he must therefore adopt some other means to prevent this reprehensible practice. There are three ways in which the physician can protect himself and his patient against this unwarranted, inexcusable, and dishonest inter-

ference: (1) Let him be certain that his prescriptions are filled only by pharmacists known to him to be above such disreputable catchpenny practices. (2) Specify plainly and unmistakably the particular preparation desired. (3) When possible order an original unbroken pockage. We feel strongly about this very common and nefarious practice of substitution, which is injurious alike to the welfare of the patient and the reputation of the physician, to say nothing about the injustice to the reputable manufacturers, who have spent brains, time and money in putting valuable and eminently eligible "working tools" into the hands of the profession.

The Renaissance of Minor Gynæcology.—The time seems to be at hand in which a physician who ministers effectively in the field of gynæcology will receive some credit from the laity without necessarily being known as a laparotomist. For a term of years major operations, often, it is to be feared, undertaken with but slight reason, have swamped all other services in this field, in the estimation of patients and their friends. The change that appears to be coming will be in the interest of sound and conservative practice, and is to be welcomed.—*N. Y. Med. Jour.*

A Menstruating Man.—Dr. Rushton Parker (*British Medical Journal*, April 1st) records the case of a man, twenty-four years of age, who married a woman, but was unable to effect sexual intercourse with her. She noticed that he had a monthly sanguineous discharge lasting about three days and staining the linen. After eight months they consulted Dr. Parker. He describes the man as follows:

"I found nothing unusual in his general appearance, except a shy, cowed look; the penis, urinary meatus, and scrotum seemed normal, but the testes felt decidedly small and soft; he stated that he had never either abused himself or had any sexual feeling whatever. Being satisfied that he was at least not a complete man, and doubtless cowed by his wife's dissatisfaction, he readily consented to a separation and allowed her half his income.—*N. Y. Med. Jour.*

Evil Effects of Hand-Shaking.—One might suppose from the calm and placid exterior of most great persons that public life is a private snap. But it isn't. Take, for instance, officials who are called upon to hold public receptions. It looks easy, of course, to pump-handle a few thousand persons at the rate of twelve a minute, but just try it once. When you have you will feel inclined to wood-sawing as a light diversion, and as a relaxation take to carrying up coal from the cellar. Reduced to the simplest expression, hand-shaking is the hardest manual labor on record. The wife of a prominent American was speaking of this feature of public life a short time ago, and in illustration held out her hands. "You see my left hand," said she; "well, it is no different from any other hand. It is not too large, nor too broad, and, if I may say it myself not ill-formed. Now look at my right hand. You notice the difference.

Do you see how much larger it is—how it is broad and pudgy? Well all that came from hand-shaking. Nowadays I have to have my gloves made to order, the right hand two sizes larger than the left." The same woman said too, that her right arm frequently became numb and powerless after receptions where she was called upon to shake hands with a thousand or more persons.—*Public Health Journal*.

Physician to the Pope.—A writer in the *Pall Mall Gazette* says: "I do not wish the position of doctor to the Pope for my worst enemy when the august patient is not well. His house—doctors to the Pope do not live in the Vatican—is no longer his own, but public property, for there is a continual coming and going of prelates, messengers from all kinds of personages, and journalists. However, the worst hours are those of the night. The doctor, to be sure of hearing any call from the Vatican, has the telephone at the head of his bed, and when sinister rumors circulate cardinals and diplomats seem to consider it their duty or privilege to ring him up at all hours of the night.

"And that is not all. Besides the inconvenience, there is also considerable expense, as many telegrams requiring answers arrive for him, a great portion of which he cannot ignore, because of the station of the senders. No one would certainly ever guess what salary the papal doctor draws; it is only \$600 a year!

"At the Vatican everything is maintained unchanged as it was several centuries ago, and the stipend of the doctor remained fixed at fifty scudi (\$50) a month, with the difference that what was formerly equivalent to a good, round sum is now of very small value. The only other advantage which he has is a carriage to convey him to and from the Vatican.

"The present doctor, Professor Guiseppe Lapponi, has held his position since 1888. At that date Leo XIII, having been left with only a surgeon, and the need of a doctor being much felt, Professor Lapponi, who was practicing at Osimo, on the Adriatic side of the peninsula, came every week to Rome to visit him. Shortly after the surgeon died, and the professor became and has remained the only physician of His Holiness. He has gradually so gained his confidence and friendship as to be to him what Dr. Schweninger was to Prince Bismarck.

"Dr. Lapponi is the only person who succeeds in overcoming the natural obstinacy of Leo XIII to take certain precautions to which he shows great repugnance. In fact, the regime established for the daily life of the Pontiff has such fixed rules that his life may be compared to a chronometer. There are, however, habits which the persistence of the doctor has not succeeded in eradicating. Only to-day Professor Lapponi told me that His Holiness still persisted in mounting a chair in his library to get down the books himself, and when remonstrated with over the danger even to a younger person he replies: 'I know the way; I know the way.' Then he will not give up mental labor. During the last few days that he has been in bed he has composed verses, worked with his private secretary, Mgr. Angell, and received Cardinal Rampolla every morning to discuss State affairs, and all this just a little more than one month before his ninetieth birthday.—*Md. Med. Jour.*

The Therapy of Iron.—Dr. A. L. Benedict, in the *Therapeutic Gazette*, for January, 1899, presents an interesting paper on this subject. The observations of Honigmann and Hofmann are quoted to show that iron administered in inorganic form is absorbed at least from the duodenum, and under some circumstances from the stomach and jejunum. In six human cases in which iron had not been administered medicinally, Hofmann made careful examinations of the alimentary canal, liver, spleen, and kidneys, using ammonium sulphide as a better reagent than potassium ferrocyanide, etc., whether for naked-eye demonstration or for microchemic preparations. He found that an abundance of iron could always be found in the spleen, as would be expected from the blood-elaborating function of this organ, and especially the breaking up of senile red cells in its pulp. It is scarcely necessary to remind the readers of this paper that hemoglobin will not react like inorganic compounds of iron and that incineration is necessary to reduce it artificially to the inorganic state. The liver always contained iron, but in varying quantity. Only occasionally, and then scantily, was iron found in the intestinal walls or the kidneys. In four other cases, iron, corresponding to about six centigrammes of the element daily, had been administered for some time and up to within a day or so of death. In this series iron was demonstrated in the duodenum in considerable quantities, in the large intestine in considerably less amount; otherwise the results were the same as in the preceding cases. Microscopically, about two-thirds of the villi of the duodenum contained iron, as shown under low powers, or macroscopically by a diffuse greenish tint; under high powers iron was shown to be present by the presence of small kernels in the epithelium and larger masses within the villi, the latter being borne mostly by round cells—lymphocytes—toward the submucosa. At first sight this would seem at variance with the classical analysis of lymph of the thoracic duct, as given by Gamgee and others. But it is evident that the analysts chose cases not under iron medication, and therefore subject to only minute traces of iron. It is supposable also that the iron may be diverted from lymph-channels into blood-vessels before reaching the thoracic duct.

It will have been noted that Hofmann's experiments are contradictory to two time-honored theories regarding the physiology of iron; that it is absorbed from the stomach as a chloride or chloralbuminate, and that iron salts, like other soluble drugs, pass immediately in the portal circulation to the liver. On the other hand, they confirm the theory that, in the spleen, senile red cells are broken down, and that the hemoglobin minus the iron is eliminated as biliary pigment, while most of the iron is reused. It is perfectly possible, however, that iron is absorbed directly from the acid stomach or even from the bowel by blood-vessels. Naturally, this method of absorption would not allow such delay of iron in the wall of the alimentary canal that it could be demonstrated by color reactions after autopsy.

As to the choice of preparations of iron the writer has never been able to observe much difference except such as might be attributed to some com-

plicating circumstance. In subacid dyspepsia the liquor tincture of the chloride is particularly beneficial, because of the acid present in excess. In chronic Bright's disease the especial virtue of this preparation and Basham's mixture has never been conspicuous, and the writer is of the opinion that the iron should be given without reference to a possible effect upon the kidney, and some such diuretic as potassium citrate or pure water or fruit juice be administered to get the exact effect needed so far as elimination is concerned. This would produce better results than trying to kill two birds with one stone. Neither does it seem wise to administer astringent salts of iron for a local effect upon the alimentary canal. Such are certainly contraindicated in gastric ulcer, while for the intestine there are far better and less irritating astringents and the iron might better be given in as mild form as possible. The so-called pyrophosphate, the vegetable salts, reduced or powdered iron, Blaud's mass and the newer preparations supposed to represent the virtues of hemoglobin have not given discriminating results in the writer's hands. All are quite unirritating; otherwise the choice depends mainly on whether a liquid or dry preparation is desired. As to the albuminates and peptonates of iron, it must be apparent that any mineral salt of iron given on a full stomach will form some such compound, while there is no preparation more palatable and more elegant than the alblminate formed by adding a ferric salt to egg-water or milk.

The key-note of successful iron therapy is to recognize that this drug is a food, and that if it is not absorbed and assimilated from an ordinary ration the trouble lies essentially with the body, and, according to Hofmann, with the duodenum. We have plenty of precedent for the administration of iron under these circumstances in the administration of acids, bile and fats when the system does not produce or properly assimilate these. It seems to the author irrational to administer iron medicinally without carrying on routine blood examinations to determine whether the particular preparation is doing good in the individual case.

Sterility and Gonorrhea.—Benzler, in the *Berliner Klinische Wochenschrift*, No. 51, investigated the influence of double orchitis in wedlock, not only those cases caused by gonorrhea, but also those of traumatic origin, and by his investigations has discovered that in more than seventy-seven per cent. the faculty of reproduction was retained. He instituted a general investigation of 3,000 patients then confined in the military hospital at Hanover suffering from gonorrhea. Only 474 of this large number were found to have been married. Sterility was only considered when those married had passed three years together without children being born to them. After the expiration of this time cases of absolute sterility caused by single orchitis increased from 10.5 to 23.4 per cent., and those of double orchitis to 41.7 per cent. The foregoing facts substantiate the author's assertion, viz., that of every hundred men suffering from double orchitis, seventy-seven of them retain the power of reproduction, provided that the women they marry be capable of bearing children, and that they have not been rendered ill and sterile by the man.—*Med. Age.*

The Report of the War Investigation Committee.—The Commission arrived at the following conclusion in regard to the Medical Department during the war with Spain :

(1) That at the outbreak of the war the Medical Department was in men and materials, altogether unprepared to meet the necessities of the army called out.

(2) That as a result of the action through a generation of contracted and contracting methods of administration, it was impossible for the Department to operate largely, freely, and without undue regard to cost.

(3) That in the absence of a special corps of inspectors, and the apparent infrequency of inspections by chief surgeons, and of official reports of the state of things in camps and hospitals, there was not such investigation of the sanitary conditions of the army as is the first duty imposed upon the Department by the regulations.

(4) That the nursing force during the months of May, June and July was neither ample nor efficient, reasons for which may be found in the lack of a proper volunteer hospital corps, due to the failure of Congress to authorize its establishment, and to the non-recognition, in the beginning, of the value of women nurses and the extent to which their services could be secured.

(5) That the demand made upon the resources of the Department in the care of sick and wounded was very much greater than had been anticipated, and consequently, in like proportion, these demands were imperfectly met.

(6) That powerless as the Department was to have supplies transferred from point to point, except through the intermediation of the Quartermaster's Department, it was seriously crippled in its efforts to fulfil the regulation duty of "furnishing all medical and hospital supplies."

(7) That the shortcomings in administration and operation may justly be attributed, in large measure, to the hurry and confusion incident to the assembling of an army of untrained officers and men, ten times larger than before, for which no preparations in advance had been or could be made because of existing rules and regulations.

(8) That notwithstanding all the manifest errors, of omission rather than of commission, a vast deal of good work was done by medical officers, high and low, regular and volunteer, and there were usually few deaths among the wounded and the sick.

The Commission makes definite recommendations for the future conduct of the Medical Department, urging the necessity of a larger force of commissioned medical officers ; authority to establish in time of war a proper volunteer hospital corps ; the establishment of a reserve corps of selected trained women nurses ; extra supplies of all sorts to be held constantly on hand ; improvement in transportation ; less red tape ; the authorization of surgeons to purchase such articles of diet as may be necessary for the proper treatment of soldiers too sick to use the army ration.

On the whole, we must regard the report as a fair statement of the conditions as derived from the evidence at the disposal of the Committee.

Kumiss.—A part of the education of every trained nurse is the preparation of delicacies for the sick, which includes not only the preparation, but the quality and character of food to meet different conditions of the stomach and the wants of the system. Every trained nurse is taught how to make kumiss, which has become recently such an important article of nutrition to the invalid. As the kumiss, or fermented milk, contains a little alcohol, with fat, caseine, lactic acid and carbonic acid gas, it is usually very agreeable to the stomach, both nourishing and refreshing, and containing so little alcohol that there is but little, if any, subsequent reaction from its effects. As made in the hospital and the country home a quart bottle is filled with milk, to which is added two tablespoonfuls of white sugar dissolved with hot water, and a quarter of a two-cent cake of compressed yeast. The cork is securely fastened, and the bottle placed for six hours in a temperature of from 70 to 80°, and then transferred to the ice box for about twelve hours, when it is ready for use. Of course, it can be kept for several days at a moderate temperature before being placed in the ice box.

Revision of the Pharmacopœia.

To all whom it may concern :

In accordance with instructions given by resolutions passed at the National Convention for Revision of the Pharmacopœia of the United States of America, held in Washington, A. D., 1890, I herewith give notice that a General Convention for the revision of the Pharmacopœia of the United States of America will be held in the City of Washington, D. C., beginning on the first Wednesday in May, 1900. It is requested that the several bodies represented in the Convention of 1880 and 1890, and also such other incorporated State Medical and Pharmaceutical Associations, and incorporated Colleges of Medicine and Pharmacy, as shall have been in continuous operation for at least five years immediately preceding this notice, shall each elect delegates, not exceeding three in number; and that the Surgeon General of the Army, the Surgeon General of the Navy, and the Surgeon General of the Marine Hospital Service shall appoint, each, not exceeding three medical officers to attend the aforesaid Convention.

It is desired that the several Medical and Pharmaceutical bodies, and the Medical Departments of the Army, Navy and Marine Hospital Service shall transmit to me the names and residences of their respective delegates, so soon as said delegates shall have been appointed, so that a list of the delegates to the Convention may be published in accordance with the Resolutions passed at the 1890 Convention for the revision of the Pharmacopœia, in the newspapers and medical journals in the month of March, 1900.

Finally, it is further requested that the several Medical Pharmaceutical bodies concerned, as well as the Medical Departments of the Army, Navy and Marine Hospital Service, shall submit the present Pharmacopœia to a careful revision, and that their delegates shall transmit the result of their labors to Dr. Frederick A. Castle, 51 West 58th Street, New York City, Secretary of the Committee of Revision and Publication of the U. S. Pharmacopœia, at least three months before May 2nd, 1900, the date fixed for the meeting of the Convention.

H. C. WOOD,

President of the National Convention for revising the U. S. Pharmacopœia, held in Washington, D. C., A. D., 1890. University of Pennsylvania,
May 1st, 1899. Philadelphia, Pa.

Eye, Ear, Nose and Throat Department.

A Report of a Few Interesting Cases.

Read Before the Charlotte Medical Society, Tuesday, April 11, '99

By W. H. WAKEFIELD, M. D., Charlotte, N. C.

Mr. President, and Members of the Charlotte Medical Society :

I desire to present to you to-night a few short reports of cases that have been of interest to me :

In February '95, I was consulted by Miss A., a healthy looking girl of 17 who gave the following history :

On awakening one morning in May '94, she found herself hoarse—the hoarseness increased and in a few days she was unable to speak except in a whisper. This condition has continued up to the present.

A view of the laryngeal structures was easily obtained and showed a thickening and congestion of the tissue covering the arytenoid cartilages with inflammation and swelling of the mucous membrane between the cartilages. The cords were normal in appearance, but approximation was rendered impossible by the swollen tissue between the arytenoids. She was placed on treatment consisting of strychnia internally and the larynx was sprayed three times daily with a solution of antipyrine, listerine and water. I also applied directly to the inflamed, thickened tissue, by means of a cotton carrier, a sol. of silver nitrate every second day, beginning with 5 grs. to the oz of water and increasing 1 gr. at each application until a 10 gr. sol. was being used.

Improvement in vocalization began in a week, and in a month, the patient declared "she could talk as well as she ever could." There has been no relapse.

Sprouting Wheat Grain Under the Upper Eye Lid for 6 Weeks.—In Aug. '96 a man of 30 called for eye treatment giving the following history. In June he was binding wheat in the field. The cradler ahead struck the heel of his cradle on a stone and at the same instant he was hit in the right eye by what he supposed was a fragment of the stone. Examination was made by his fellow laborers but nothing was found in his eye and he resumed work, his eye causing but little annoyance, aside from exhibiting slight redness. In a few days, however, this redness became more intense, and the upper eye lid began to swell. Various eye lotions were used but the eye grew worse and he consulted me about six weeks after the injury. At this time, the mucus membrane of lids and ball was intensely congested, and the upper lid bulged quite perceptibly at the upper edge of the tarsal cartilage.

My first act was to evert this lid, when to my surprise a foreign body rolled down his cheek. This was found to be a grain of wheat covered by its inner coating of chaff; the wheat had sprouted and the sprout was fully $\frac{3}{8}$ inch long.

The thick raw edges of the ulcer formed by the presence of the foreign body were snipped off to expedite healing, boric acid lotion applied every two hours and calomel salve applied to the everted lid twice daily. All inflammatory symptoms rapidly disappeared.

Wheat Beard One Inch and a Half Long Under Upper Eye Lid.—In Aug., '96, a man consulted me, giving the following history: A week before while "cutting bands" at a wheat threshing he was hit in the eye by a wheat-beard. The pain was severe and his physician found a short piece of a beard stuck in the cornea. This he removed, telling the patient to see me next day if his eye was not better. In a week he comes with his eye intensely injected, and the upper lid much swollen. The point at which the beard stuck in the cornea is visible, but the abrasure was healed. I insisted upon looking under the upper eye lid, he objecting on account of the pain.

The lid was everted with difficulty, then by means of retractors the lid was further elevated and a wheat beard $1\frac{1}{2}$ inches long was found snugly tucked away.

It was removed and none too soon for the lids and eye were rapidly growing into a condition dangerous to sight.

A Child With Husk of Corn Stalk in Eye.—In May, '96, a child of twelve months was sent to me by the late Dr. Victor McBrayer, of Shelby. At the outer canthus of right eye a polypoid growth was found extending nearly half way over the sclerotic toward the corneal margin.

Under chloroform, two polyps were found, one springing from the upper and the other from the lower cul-de-sack. On removing these, there was found a piece of the outershell or husk of a corn stalk, $\frac{1}{8}$ inch wide and $\frac{5}{8}$ inch long. This was standing vertical at the outer canthus and from the points at which its ends lacerated the mucus-membrane exuberant granulations had sprung up and extending in the direction of the least resistance had covered about one-fourth of the eye.

Fowlers' Solution for Boils.—Wallick,² of Williamsfield, Ill., says the best possible remedy for boils is Fowler's solution given in five or ten drop doses after each meal. It checks the development of a new crop when the first has completely suppurated. The author says he uses it as his sheet-anchor in acute and chronic forms, and it has not failed of success in one out of twenty trials.

—² Practical Medicine, February, 1899.

Thymol, U. S. P., is a crystalline phenol soluble in 1200 parts of water but very soluble in alcohol, ether and chloroform. It is a good intestinal antiseptic in pill form, in 2 to 3 grain doses. A watery solution makes a good mouth wash.

Certain patent medicine manufacturers have combined with a capital of \$25,000,000, under a New Jersey charter.

Alcohol is said to counteract the escharotic action of carbolic acid.

Reading Notices.

ONE OF THE OLDEST ANTISEPTICS, BUT ONE OF THE BEST.—There are thousands of physicians, yes, tens of thousands, we doubt not, who can say with "Doctor," in "An Interview," "Why, I absolutely depend upon Listerine in most of my throat work, and find it of inestimable value in my typhoid cases (as many a poor soldier boy can testify), and there are a number of purposes I put it to in the sick room, where nothing can take its place, notably, as a douche, mouth-wash, and in sponging my fever patients. Furthermore, I always deem it my duty to see that my patients get exactly what I order for them, therefore, I always order an original package, thus avoiding all substitutes. That is just where my views upon professional attitude and sound business policy consolidate into one joint effort for the patient's benefit, and incidentally, my own."

Like every other good thing, Listerine has been counterfeited, as many a physician has found to his regret, none of the "just as good and cheaper" preparations approaching it for trustworthy antiseptic service.—*Mass. Medical Journal*.

WHEN PAIN IS DOMINANT.—"A number of years ago, in a conversation with my old friend, Professor Stucky, of Louisville, he told me that he used far less morphine now than formerly and that he was able to combat the factor of pain as successfully in the majority of cases without it as he did with it. He urged me to give antikamnia to my patients who had neuralgia, la grippe, rheumatism, locomotor ataxia and dysmenorrhœa, instead of using morphine. I acted on his suggestion and have been able to relieve this class of patients as effectively and without producing the evils that result from the exhibition of opium or its alkaloids. Antikamnia possesses anodyne, antipyretic and analgesic virtues and has been thoroughly tried by able therapists. Prof. Shoemaker, of Philadelphia, has found it very valuable in rheumatism, migraine or neuralgic headache and many other nervous affections."

SANMETTO AND SUBSTITUTES WITH THE "SAME FORMULÆ."—I have used Sanmetto in cases of catarrh of the bladder and enlargement of the prostate gland with great success. In fact I never saw anything so near a specific. Henceforth I will not be without Sanmetto. Saw-palmetto and Sanmetto substitutes with the "same formulæ" do not act nearly so well. I therefore with pleasure recommend Sanmetto to the medical profession.

J. L. SAMMONS, M. D.

Calis, W. Va.

MALARIAL FEVERS.—Prof. G. Scognamiglio (Die Heilkunde) presents reports of his own experience, as well as that of Drs. Loti and Colotti, with quinalgen in the treatment of the various forms of malaria, in which quinine was not tolerated, or was otherwise objectionable. Up to the present time they had employed the remedy in 40 cases, comprising intermittent fever, 11 cases; tertian, 7; quartan, 7; masked forms, 10; pernicious malarial fever, 3, and atypical, 2 cases. The results were remarkably favorable in the first class, from 7 to 22 grains being administered three times daily. Equally satisfactory effects were obtained in tertian and quartan fevers, doses of 15 to 22 grains being given 8 to 10 hours before the occurrence of the attack, until 30 to 60 grains had been taken. In all these cases, as well as the masked forms, the attacks were either aborted

or much reduced in intensity, and a permanent cure rapidly obtained. In pernicious types of fever it was usually found desirable to give an initial dose of 30 grains, followed by smaller doses. In the majority of these cases a cure was brought about after 10 to 12 days' treatment.

UTERINE DERANGEMENTS.—I have used Aletris Cordial in my practice for over a year, and to say that I am pleased with it does not nearly express the degree of my satisfaction. Aletris Cordial fills a long-felt want with me. Symptoms attending uterine derangements have always been perplexing to physicians, but with this remedy the trouble vanishes as dew before the rising sun.—L. M. MCLENDON, M. D., Georgiana, Ala.

External Urethrotomy.—Dr. J. R. Hayden (*Boston M. & S. Journal*) emphasizes the following points in this operation:

1. *Division of the Stricture.*—All of the stricture tissues should be completely divided in the median line, not only on the floor, but also on the roof of the canal. In order to ascertain whether the division of the tissues has been complete, the index finger, with its palmar surface directed upward, should be passed into the perineal wound and down to healthy urethra, well in front of the stricture, and then backwards on the roof of the canal into the bladder; this will readily detect any bands or masses which have not been thoroughly divided. At the same time the dilation of the posterior urethra with the finger prevents in a great measure post-operative tenesmus. The perineal operation being completed, a full-sized sound should be passed from the meatus into the bladder to ascertain that the whole length of the urethra is clear; if obstructions exist, they may be removed by meatotomy, internal urethrotomy, or post-operative dilation.

2. *Bladder Drainage.*—This the author regarded as a most important measure after this operation. He advised the use of a large perineal tube, which keeps the bladder well drained, dilates the posterior urethra, and, to a certain extent, the divided structure, and is an ever ready route for bladder irrigations, which are so essential in the treatment of urethrocystitis. In from two to four days after the operation the tube is taken out, washed, and replaced; it is removed permanently on the fifth to seventh day, when the patient is allowed to be up and about. In the majority of the cases all the urine is passed by the urethra in about one week after the removal of the tube, but in some the urethral wound remains patulous for several weeks.

3. *Post-operative Dilation.*—When the tube is first taken out for cleaning, a medium sized sound is passed into the bladder and held there for about a minute; this is repeated every second or third day until the perineal wound has cicatrized, and the urethra takes a No. 28 to 30 (French) sound with ease, according to the case, when the intervals are made longer.

4. *Treatment of the Perineal Wound.*—The perineal wound should be personally inspected every day to see that it is healing solidly from the bottom by firm, healthy granulations, and is not allowed to bridge over in places, or to fill up with pale, flabby tissue. This can be prevented by running the finger firmly through the bottom of the wound from end to end. Exuberant granulations are removed by the nitrate of silver stick or curved scissors and the wound dressed lightly with gauze.

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Original Communications.

Dysmenorrhœa And Its Treatment.

BY MILTON P. CREEL, M. D.

Surgeon Q. C. Railway, Surgeon L. & N. Railway, Secretary Muhlenburg County Board of Health, Referee for Muhlenburg Co. for Ky. State Board of Health, President Muhlenburg Co. Medical Society, Member U. S. Board Pension Examiners, Member American Medical Association, Member Kentucky State Medical Society, &c., Central City, Ky.

THE term dysmenorrhœa signifies painful menstruation, and carries with it no well defined agreement of associated pathological conditions.

In the best sense of the term dysmenorrhœa is not a disease but a symptom of some diseased condition, which is often very obscure, yet, when dysmenorrhœa can be clearly demonstrated to depend upon no physical defect, as obstruction, it is clearly a neurosis.

Some writers divide dysmenorrhœa into a great many varieties, based on pathological conceptions of the writers, and therefore theoretical in a large degree, but they are controverted by many other authors, and these varieties have therefore come to be regarded as not trustworthy by practical physicians.

Again, some writers will have it that dysmenorrhœa is at all times an obstructive affection. But it has been proved time and again that females suffer regularly with dysmenorrhœa who are in no wise the subject of any disease of the organs of generation. Some writers have offered the following forms of dysmenorrhœa as those which express the true cause. These are termed the "congestive," "spasmodic," "inflammatory," "neuralgia," and the "membraneous" forms of dysmenorrhœa. There is no question that there is an *obstructive a neuralgic*, and a membraneous form of the affection. Yet while we cannot agree that the other forms will obtain in a logical examination of the facts, there are doubtless certain clinical features present in many cases to give rise to a belief in the possible existence of other varieties. That we indulge, however, in a large degree of speculation relative to the nature of dysmenorrhœa the following quotation from Foster will prove: (1). "That women who so far as we can discover, are in perfect health in other respects,

both constitutionally and locally, suffer from dysmenorrhœa, although it must be admitted the great majority of sufferers show evidence of a depraved constitutional state. (2). That women of every sort of systemic ill health escape this ailment. (3). That the affection is found associated with every abnormality of the sexual apparatus. (4). That except positive occlusion of the uterine canal, there is no condition of the parts concerned that invariably gives rise to it. It will be seen from all this that the relations between dysmenorrhœa and its causes are very diverse and but imperfectly understood; that no single theory of its causation will apply in all cases, and that no one of the nosological systems covers the ground satisfactorily from a clinical point of view."

For convenience I shall adopt those varieties which I mentioned above as the most logical divisions of the subject. These are the obstructive, the neuralgic, and the membranous, and I shall give an outline of each, before giving my conception of the proper treatment.

Obstructive Dysmenorrhœa is that expression of the affection dependent upon obstruction to the escape of the menstrual fluid from the genital organs. Obstruction of the uterus, or vagina either will give rise to obstructive dysmenorrhœa. Most generally, if not almost exclusively, the obstructive form is dependent upon uterine obstruction. These are in a great many cases found to be uterine flexions, the interposition of a polypus, the presence of an exfoliated membrane, or to stenosis dependent as it is upon causes which have been existent for a considerable time.

I shall not take time here to give the diagnosis of this form, so well recognized; and I will consider the treatment when I have spoken of the other varieties.

The Neuralgic Dysmenorrhœa, is a form, which is so clearly distinct from the obstructive form in so many of its characteristics, as to justify me in denominating it a distinct expression of this disorder.

This type of dysmenorrhœa is characterized by pain of greater or less severity at each menstrual period. In those patients who suffer from it there is pain in the uterus from the time the menses appear until they disappear, and even the pain continues until the menses have passed. Those who are attacked with this form of dysmenorrhœa are generally those persons who have been exposed to some disease influence which is sufficient to establish a neuralgia. I have found that many of these patients live in malarious districts, others are those who work hard, and expose themselves to cold, and other influences which tend to lower the vital stamina. The neuralgic character being dominant in all these cases, by the fact that pain is the constant feature, and there is no obstruction in any way to the escape of the menstrual flow. Again, these patients suffer with neuralgia in other parts of the body at other times than the catamenial period. Examination often reveals the fact that these patients are suffering from anæmia, or lowered vital stamina dependent upon some disease influence at work in the body.

Membraneous Dysmenorrhœa, is a form of the affective, peculiar and distinctive. It is characterized by the passage of a membrane, a perfect cast of the interior of the uterus, at every menstrual epoch and it is characterized by the presence of a great deal of pain.

The causes of this form of dysmenorrhœa are entirely unknown. Often, however, it is associated with, or follows in the train of, long continued uterine disease.

Now, what can be said of the treatment of this affection? The disorder is very common and the practitioner should have well defined ideas as to the proper management of the affection. The treatment naturally divides itself into two general indications. *First*, the employment of such methods as will remove the cause; and, *secondly*, bringing to bear such treatment as will mitigate the pain which is the dominant factor in all cases. In the treatment of the obstructive form of dysmenorrhœa, the correction of any flexion or displacement will be imperative and also will we have often to remove a polypus when we find it to be the causative factor. Operation for stenosis will be called for when we are sure that it exists. In the management of the neuralgic form, we shall find ourselves under necessity of ascertaining the cause of the neuralgia, and adjusting our treatment upon it. Close study of each case will generally reward us with a solution of the problem. If anæmia or malaria is found to be the cause, our duty is manifest, and likewise as to other indications.

The treatment of Membraneous Dysmenorrhœa is as unsatisfactory as its etiology. Many plans of treatment have been carefully tried, but no measure has been more successful than the administration of tonics and constructives for a considerable period, and the application of iodoform to the interior of the uterus. This, together with the administration of certain drugs which act directly as an anodyne on the uterus, will often bring happy results.

What agents are best for the relief of the patients during the painful period? Often the pain is very severe, and we can only obtain relief by the giving of morphine hypodermically. This remedy, valuable as is the service it renders us in extreme conditions, is never required if we have had our patient under observation for any continued time. If liquor sedans be given for a time, its tonic action on the uterus and its appendages will be so manifest that the dysmenorrhœa, will not appear, if the other treatment looking to the removal of the cause be given. In many cases of dysmenorrhœa, (neuralgic and obstructive) no other agent than liquor sedans is necessary. Conjoined with suitable constitutional treatment this agent will relieve the conditions so materially that the next menstrual epoch will be past without pain. I order the patient to take liquor sedans for a period of six weeks or two months, along with other agents which I think are necessary. Even in those cases where we see the patient for the first time, there is no better treatment than to give liquor sedans in teaspoonful doses every hour until the pain is stopped. After that, I give it in doses of half teaspoonful every three hours a considerable period as a uterine regulator and tonic. Let me

now give in a brief way the clinical histories of several cases of dysmenorrhœa treated along the lines here laid down.

Mrs. Y. N. M., aged 27, suffered with dysmenorrhœa to an extent that at many times threatened her life—so severe were the exacerbations of pain. She was a clerk in a store and stood up a great deal. Her appetite was poor and she gave evidence of being a sufferer from anæmia. She was also very nervous, and the subject of violent attacks of headache, and hysteria. This patient was given remedies looking to the correction of the anæmia present. She also took liquor sedans in doses of a teaspoonful four times daily an hour before meals and the last thing on going to bed.

Her headaches were promptly relieved by bromide of potassim. She began to improve in strength and general appearance, and passed the first menstrual period after beginning the treatment (three weeks from the beginning of treatment) without pain.

This patient, who has now gone several months without any pain while menstruating, and looks well, and feels no necessity for any drug whatever.

Mrs. L. K., age 27, suffered with membranous dysmenorrhœa for a long period. She was put on liquor sedans in doses of a teaspoonful four times daily and continued it several months. Local treatment was employed for a month. This woman for the first time became pregnant and after giving birth to a healthy child had no further evidence of disease.

Miss S. O., age 20, had painful menstruation. She had no constitutional cause that I could lay hold of. I gave liquor sedans in teaspoonful doses four times daily and ordered her to take systemic exercise and to look well to it that she did not become constipated.

She made a complete recovery in two months.

The Chloroform-Ether Controversy.

By AUGUST SCHACHNER, M. D., PH. G.

Demonstrator of Anatomy in the Louisville Medical College, etc., Louisville, Kentucky.

Stenographically Reported for this Journal.

IN a paper on this subject read before the Louisville Clinical Society the author said in part, that he disclaimed any originality, the object being to gather accessible material and present it as a basis of discussion.

It is a well established axiom in surgery that it is impossible for a surgeon to become a devotee of a special anesthetic. He may have a preference, and where no special contraindications exist yield to it, but a wise eclecticism in this respect must prevail.

The conditions which control the selection of the anesthetic are both external and internal.

External conditions, as in the time of war, would give chloroform the preference by reason of the rapidity of its action, the advantages in portability, and its safety in point of inflammability.

Internal conditions which favor the preference in behalf of chloroform are various: Tetanus and violent puerperal convulsions demand the more rapid of the two agents, and therefore furnish strong reasons for the selection of chloroform.

Very old subjects have too much rigidity about the chest to meet the demands of ether, and because of these senile changes, and not the years, chloroform is the more desirable agent of the two; but freshly prepared A. C. E. mixture would be preferable to chloroform. (Hewett.)

In extreme obesity ether often occasions such undue excitement as to make its use undesirable; but even in these Wood recommends a trial of ether, and if not well borne, the substitution for chloroform until quiet anesthesia is secured, then a return to ether.

Where renal disease exists, with or without atheroma, chloroform is safer. If renal disease is complicated with a heart lesion, the decision may be difficult. When secondary cardiac degeneration, which sooner or later follows in the course of Bright's disease, makes its appearance, ether is safer than chloroform; or, as Wood states, begin with ether, and when the subject is well under way and the stimulating effect apparent, change to chloroform.

In valvular heart trouble ether should be preferred. A loud murmur points to the character of the lesion, but equally to the condition of the heart muscle, so apart from the organic defect it argues more in favor of a strong than a weak heart.

In diseases of the respiratory apparatus, chloroform should have the choice over ether. In organic brain disease, such as tumor or wide-spread atheroma, any anesthetic is accompanied with risk. Organic brain disease is responsible for more deaths from anesthesia than organic heart disease. While not entirely represented, the indications and contraindications are in the main set forth in the foregoing lines.

Treatment of accidents during anesthesia should be divided into *preventive* and *restorative*. *Preventive measures* may be arranged under three heads, viz:

- (1). Correct adjustment between the selected anesthetic and the condition involved;
- (2). Proper preparation before, and proper administration of, the anesthetic;
- (3). Prompt attention to any flagging of respiration or circulation.

The first measure has already been considered in a practical way.

As regards the second: Aside from well-known directions as to the stomach and the presence of foreign bodies in the mouth, the administration of one-half ounce to one ounce of whiskey, not immediately, but at least half an hour before anesthesia, is an old and excellent practice; hypodermic injections of strychnine, digitalin, atropine, or cocaine, singly or combined, to suit the demands of the particular case; when the circulation is aimed at, strychnine and digitalin; when the respiration is at fault, cocaine, strychnine, or atropine, alone or in combination. Tincture of digitalis is prefera-

ble to digitalin, but those who have had experience with the hypodermic use of tincture of digitalis, aromatic spirits of ammonia, etc., will be slow to forget the painful consequences which too frequently follow their employment. For this reason the active principles rather than any of the galenical preparations of the drugs are recommended. Cocaine has fairly well established its supremacy as a respiratory stimulant, with strychnine close in its footsteps.

About three years ago Rosenberg advanced the view that irregularity of the heart was due to an interference with the respiratory organs. This interference, however, was not of a mechanical but of a reflex character; an interference with the pneumogastric and respiratory nerve centers in the medulla, caused by reflex irritation of the terminal branches of the trigeminal nerve distributed in the nasal mucous membrane.

Rosenberg's directions for employing his method are as follows: "The patient is directed to blow his nose in order to free it from mucus, then two centigrammes of a ten-per-cent. solution of cocaine is sprayed into each nostril. After a pause of two minutes, one centigramme of the solution is applied again to each side, and then the anesthesia may begin. Every half hour the application of cocaine is to be resumed. Before removing the patient the nose should receive a final spraying. At each application about one grain of the salt is used. It is important to maintain full anesthesia, as dangerous fluctuations in respiration and pulse always coincide with the necessity of crowding the anesthetic."

According to Rosenberg, the advantages of cocainization of the nasal mucous membrane preceding and during anesthesia are :

- (1.) As the patient's perception of the odor of the anesthetic is much diminished, the feeling of suffocation is entirely absent.
- (2.) The stage of excitement is either short or entirely absent.
- (3.) Vomiting during narcosis is rarer than usual.
- (4.) Sickness following anesthesia does not occur.

This has been tested by Gerster in one hundred unselected cases, Gerster, however, did not employ a ten-per-cent. solution of cocaine, but used one of half that strength, which justifies the belief that he considered Rosenberg as employing unnecessarily strong solutions. In four out of the one hundred cases some irregularity occurred which was correctly or incorrectly charged to the cocaine. In the discussion which followed, Gerster contended that two of these ought to be excluded since the symptoms were more due to the loss of blood. The third case could reasonably be charged to the cocaine, and the fourth he believed to be due to a spasm of the glottis.

So many accidents have already been attributed to cocaine that it is exceedingly problematic whether the method of Rosenberg is a step forward, a standstill, or even a step backward, in the solution of this controversy; we believe the majority will consider it a backward step so far as the mortality is concerned, or at any rate will be so distrustful as to hesitate in its trial, not to speak of its adoption. Again, if the anesthetic is not crowded too

much at the start, anesthesia of the nasal and laryngeal mucous membranes is obtained; thus irritation, cough, fright, etc., are avoided, and the abolition of these reflexes accomplished.

The first series of Rosenberg's experiments showed that cocaine had the power of checking the action of chloroform on the brain, and in the second series it was shown that animals cocainized could stand double the amount of chloroform and be kept anesthetized for a much longer time than the control animals. Lastly, Rosenberg regards cocaine as an antidote to chloroform.

In the *Post Graduate* (July, 1893) Doctor William H. Porter presents an interesting paper on the indications to be drawn from the urine as to the safety of anesthetics, in which there is a great deal of theory mixed with material that can profitably be agitated by those who administer anesthetics and practice surgery. His paper goes far towards explaining why some subjects do badly under anesthetics, and under surgical operations when we expect them to do favorably. His fourth conclusion is: "That by a careful study of the density of the urine and its causes we are in possession of exact information by which we can determine the precise nutritive condition of the system, and be forewarned as to the possible outcome of the anesthesia. It also enables us to judge which anesthetic is best adapted to the case in question."

Any flagging in circulation or respiration during anesthesia should be met with energetic hypodermic medication. If the circulation is involved, strychnine and digitalin; if the respiration, strychnine, cocaine, or atropine, singly or combined.

Restorative treatment: In speaking of accidents during anesthesia, Doctor Wood expresses himself in the following language: "Death is so near and so terrible, and moments so important, that no surgeon would be willing or justified in waiting for the effect of any one remedy; and when a man is dosed with alcohol, nitrate of amyl, hypodermic injections of ether, digitalis, atropine, and other powerful agents; faradized, slapped, douched, stood on his head, subjected to chest movements for artificial respiration, and various other measures too numerous to mention—who can tell, if by chance he recover, why he has done so? Or who can point out, if by chance he die, what is the remedy whose omission or commission has led to the fatal result?"

The problem is a complex one, not to be worked out amidst the excitement and responsibilities of the ampitheatre. Only in the physiological laboratory can its various elements be separated and studied each by itself, without regard to the individual life which is at stake.

When the crisis makes its appearance, nothing is more useless or harmful than wasting precious seconds and valuable efforts in resorting to medication in general and hypodermic medication in particular. This much in the controversy is agreed upon. Even if respiration fail first, the circulation may do so simultaneously, or at best soon thereafter; under the most favorable circumstances there can be but a very narrow margin between

failure of respiration and circulation. With practically no circulation, the uselessness of hypodermic medication is at once apparent, and when we consider the few moments left us in which to act, the harmfulness is wasting these few moments is more than apparent.

I do not wish to be misunderstood: I am emphatically opposed to wasting any chances through hypodermic medication. I am emphatically in favor of hypodermic medication before the crisis, and when the patient emerges from the critical condition, but not during the crisis, when the circulation is entirely or practically suspended. When the crisis occurs, the proper remedies are not medicines but mechanical measures. The foremost of these is artificial respiration, slowly, carefully and deliberately performed. This I place at the head, with hardly another measure second, and while it is being performed an assistant should elevate and push forward the inferior maxilla, grasp the tongue with a suitable instrument and drag it well forward, at the same time cleansing the mouth of any mucus that may be present. So far we have engaged the attention of two assistants in carrying out the two best accessible measures. If a third be present, let him step upon the table and lock the knees of the patient in his arms, and alternately raise and lower the body, but not raise the body and keep it in that position. Should a fourth assistant be present, let him bare the patient's chest and practice flagellations alternately with hot and cold towels. Four persons may thus harmoniously combine their efforts without interfering with each other. When signs of returning life make their appearance, hypodermic injections should be practiced, but without the discontinuance of the measures just named, which should be continued until the patient is thoroughly restored.

Referring to experiments upon lower animals Doctor Wood remarks: "I several times noted that the heart was usually more affected by alternately elevating and depressing the feet of the animal than by keeping it in a steadily elevated or horizontal position. When the circulation has practically ceased, under the depressing influence of an anesthetic, inverting the body must cause the blood, which has naturally collected in the excessively relaxed vessels of the abdomen, to flow into the right side of the heart and distend it, and this distension—this increase of pressure—appears at times to have a sufficient momentary influence to stimulate the failing organ. The theory which has been advocated by some therapists that inversion of the body is of value in the accidents of anesthesia, because it causes the vital centers of the brain to be supplied with blood, is probably incorrect. The respiration in anesthesia fails, not through want of blood in the respiratory centre, but because the blood contains a poison which paralyzes these centers."

When the patient emerges from the crisis and hypodermic injections are resorted to, no better agent than strychnine in large doses—one-tenth or one-twentieth of a grain—can be found. This is a powerful support to both circulation and respiration.

DISCUSSION.

Dr. P. Guntermann :

Death from anesthesia generally occurs from cessation of respiration instead of cardiac failure. In the management of accidents during anesthesia,—chloroform poisoning,—I do not agree with Doctor Schachner as to the use of hypodermic medication, that is to delay it until mechanical means have restored the patient. I think his position is wrong. The anesthetist should have his drugs ready, and as soon as there is evidence of failure either of the heart or respiration it takes but a second or two to make an hypodermic injection of the drug which may be indicated, and he practically loses no time in the use of proper mechanical means for restoration of the patient. If the hypodermic injection does not act at once, it cannot do so at all because circulation is suspended or is at a standstill, but if the injection is given before the adoption of mechanical means, or as soon as mechanical means can be applied, or at the same time, as soon as mechanical means have succeeded in bringing about a restoration, in starting new heart's action, so soon will absorption of this hypodermic injection take place, and it will not take half as long to restore the patient as it would if the hypodermic injection had not been used. A great deal of time will be gained by having the hypodermic injection under the skin by the time mechanical means are instituted.

Dr. Carl Weidner :

My own experience in giving chloroform has not been very extensive in the last year or two. I have used cocaine and think it has been of benefit, in connection with chloroform anesthesia. I have never used, except in one case, the thorough application of ten-per-cent. solution of cocaine by means of the spray as recommended by Rosenberg ; but I have applied it thoroughly in strong solution with a mop made of absorbent cotton wrapped on a probe at intervals about ten minutes before the administration of chloroform, and it has been of decided benefit, the patient taking the anesthetic quietly and easily, breathing in better and keeping a better pulse. I speak of chloroform entirely, but the same thing will apply to ether to some extent. As to whether cocaine has a direct antidotal effect, I am unable to say.

I did not hear the essayist say anything about a drug which has been highly recommended in cases of accident from the administration of chloroform, viz : morphine. I wish he had said something about the use of this agent before the administration of chloroform ; not in small doses, for instance the ordinary $\frac{1}{8}$ or $\frac{1}{4}$ of a grain, but $\frac{1}{4}$ to $\frac{1}{2}$ grain half an hour before the anesthetic, with view of obtunding the nervous system,—and above all in reference to the administration of ether, of obtunding the sensibility of the mucous membrane of the respiratory tract, thereby enabling the patient to breathe freely and steadily from the beginning of the anesthesia.

I think it is agreed by all authorities that the damage to the lung and to the kidneys from both chloroform and ether is increased according to the quantity used. Doctor Schachner has outlined the best

methods of getting rid of the poison which should be our first aim in case of accident.

Dr. F. W. Samuel :

The essayist has given us an excellent resume of the methods of overcoming the immediate deleterious effects of general anesthetics, viz : interference with the respiratory and cardiac apparatus, but he says nothing about the remote effects.

I have been familiar with the method advocated by Rosenberg for a long time, but have never employed it. I believe considerable danger attends spraying into the nose a ten-per-cent. solution of cocaine, and instead of Rosenberg's method becoming general I think it will soon be obsolete. I would rather depend upon slower and more careful administration of the general anesthetic to overcome the irritability of the nasal mucous membranes than resort to spraying with cocaine. The main thing to be considered in preventing accidents during general anesthesia is to have an expert anesthetist, one who is skilled and who is able to recognize the dangers as they approach. The methods of meeting accidents when they occur as detailed by the essayist have been before the profession for several years, and the controversy is by no means settled yet. As to exactly how the anesthetic acts in causing these accidents we are still in the dark. The three best measures of resuscitation are (1) artificial respiration, (2) elevation of the body, and (3) rhythmic traction of the tongue. I believe it is recognized that rhythmic traction on the tongue stimulates respiratory effort. My idea in elevating the body is not so much to get the blood to the right side of the heart, as to induce it to flow into the medulla and stimulate the respiratory and heart centers there, just as we do in the new born infant. Hypodermic injections during the time animation is practically suspended are useless. More good can be accomplished by mechanical means to stimulate the respiratory efforts. I believe faradism might be of benefit.

Dr. Wm. Bailey :

I doubt if any man is skilled in the administration of both chloroform and ether, they are given so differently that a man who is accustomed to administering ether and only under protest occasionally gives chloroform, he is apt to give chloroform as he gives ether, and *vice versa*, which we know would be decidedly injudicious. • There is great danger of overwhelming the patient with too much chloroform, it must be given with a certain percentage of atmospheric air, which is not true to the same extent with ether. As to the administration of chloroform in organic troubles of the heart: My judgment is that it is much more important to know the condition of the heart muscle and its own ganglia than it is to know the condition of the valves. Even if a murmur is present, if there is a sound heart muscle, the anesthetic is perfectly safe. As to selection of the anesthetic, in kidney affections chloroform being given by preference is largely because in the administration so much more ether has been given than would have been necessary with chloroform, hence so much greater tax

imposed upon the kidney for elimination, and the more frequent interference in its function as follows secondarily. I think this is the correct explanation of the greater danger of ether *versus* chloroform in cases of kidney involvement. As to the use of cocaine, I think it is only a question of comfort to the patient during the administration of the general anesthetic by local anesthesia of the nasal mucous membrane, taking off the reflexes, so as to get rid of the disagreeable suffocating sensation that goes particularly with the administration of ether. With the judicious or proper use of chloroform there are practically none of these disagreeable phenomena; if it is introduced slowly narcosis is produced so gradually that there is little discomfort and cocaine is not required. I do not believe that 10 per cent. solutions of cocaine ought to be used frequently in the nose. If you will take one hundred or one thousand cases and inject each one of them with a strong solution of cocaine, you will probably have from the cocaine, if you administer no other anesthetic, as many cases of "irregularity" as mentioned by the essayist, which means I take it complications or dangers,—you will have as many from the cocaine as you would have from either ether or chloroform. I am quite sure of this. Where there is need for local anesthesia in cases of the character being discussed, it can be accomplished with much milder solutions than ten-per-cent., you can obtund the sensibilities, take off the reflexes, and get rid of the discomfort, and I believe this is more needed during the administration of ether than with chloroform. I approve of the method mentioned by Doctor Weidner, that we should administer morphine previous to the administration of the general anesthetic. In connection with it, however, for both stimulation to the circulation and respiration, it is equally important to combine atropine with the morphine. It has been my practice to give rather more atropine than ordinarily advised. Where $\frac{1}{4}$ grain of morphine is used I combine with it $\frac{1}{100}$ grain of atropine hypodermatically. I do not agree with the Hyderabad Commission that the danger in chloroform is from the respiration alone. With an experience running over forty years during the early part of which I had occasion to administer chloroform a great many times,—perhaps in one thousand cases,—I think I have demonstrated satisfactorily that the danger lies not alone with respiration. Recently I have avoided giving anesthetics wherever it was possible to do so, because I think they are under all circumstances more or less dangerous. Even when artificial respiration is practiced I believe it is a good plan to administer nitrite of amyl, because we may get the effect of this agent before we could get an impression from any drug injected hypodermatically owing to the weakness of the circulation. Even with a limited respiration we may get some good effect from nitrite of amyl, and if in this way we can open the capillaries and stimulate the heart, the condition is improved. Hypodermic injections of nitroglycerine were not mentioned in the paper. That along with nitrite of amyl is indicated in efforts to resuscitate a patient who is overcome by anesthesia. Another point to which I would call attention is, if a case is of sufficient gravity to require the admin-

istration of a general anesthetic, it requires profound anesthesia before a knife is touched to the patient. I believe many of the cases where death has occurred during administration of anesthetics, were cases where the patients were only partially anesthetized when the operation was commenced, and the reflex action upon the heart from the first touch of the knife was the most important factor in the cause of death. If any case is grave enough to require a general anesthetic, no operation should be performed until the patient is under full surgical anesthesia, until he is sufficiently narcotized to take off the reflexes that might act upon the heart from the operation. With proper precautions,—examination as to the condition of the heart muscle, the brain and kidneys, and particularly the condition of the general system at the time of the administration, I believe we can eliminate many of the difficulties to which attention has been called. We all understand the necessity of the horizontal position, the importance of removing all clothing, etc., which might restrict the circulation, and with these precautions we may feel reasonably safe in the administration of a general anesthetic. With cocaine, however, we never know what it is going to do. Most of us have probably had called to our attention the dangers attending the administration of even small quantities of cocaine, and nobody can foretell what is going to be the effect of a ten-per-cent solution of this agent. I would hesitate very much about spraying the nasal mucous membrane with a ten-per-cent solution of cocaine to obviate the little discomfort which follows the administration of a general anesthetic, and even if I wanted to administer ether, to overcome this discomfort I would rather carry the patient under it gradually or administer chloroform first until the reflexes were controlled then use ether. I am sure we are disposed to push our anesthetics too rapidly. Anybody taking the responsibility of administering anesthetics ought to be absolutely his own master, as to when, how much, etc he should give. He should be directed by the surgeon that he is not to pay attention to anything except the condition of the patient and the administration of the anesthetic. We know how frequently the surgeon calls out to the anesthetist to push the chloroform if the patient flinches under the knife; this should not be so, the surgeon should wait until the anesthetist informs him that the patient is profoundly influenced and ready for the operation, otherwise harm and perhaps death may result.

Dr. W. C. Dugan:

This is a subject in which we are all interested. First I desire to speak of a point made by Doctor Weidner and later emphasized by Doctor Bailey, viz: hypodermic injections of morphine before administration of a general anesthetic. Some anesthetists object to this, as they say it does away with the pupillary reflexes and destroys one of their most reliable signs of approaching danger. I have witnessed most happy effects from the administration of morphine combined with atropine before giving general anesthesia. The mistake we made is that we administer morphine and atropine too late; we should give them at least half an hour before the anesthetic, the patient is then quieted, there is less fear, he goes under the

anesthetic easier, and the stage of excitement is shorter than it would otherwise be. Like Doctor Bailey, I believe we ought to select a man to give the anesthetic upon whom we can implicitly rely, then leave the administration entirely to him. I always do this, and am not only willing to trust to the anesthetist to select the anesthetic but also to have full charge of its administration. I am glad Doctor Bailey made the point in regard to organic heart disease. Where a patient has a murmur, no matter what its character, just so the heart is regular showing no sign of muscular degeneration, I have no fear as to the safety of the anesthetic. I have oftentimes made the remark that a heart murmur was a rather favorable indication. The essayist made a good point about the anesthetist being on the lookout for danger. Many times have I had the anesthetist call for his hypodermic syringe and give the patient an injection of nitroglycerine or some other preparation that was gotten ready beforehand. I always insist upon strychnine, nitroglycerine or something of that kind being gotten in readiness before anesthesia is begun, so that they may be used whenever there is the least indication of irregularity on part of either the circulation or respiration. I have noted the good effects of it time and again, both upon the circulation and respiration. I agree with the essayist in regard to mechanical restoratives. We should not give hypodermic medication after the time of danger has arrived. If we find respiration has ceased, we should not attempt to give hypodermic injections, for we are apt to give so much that when reaction comes on and absorption takes place we will have the toxic effect of drugs administered under such circumstances. We should rely upon artificial respiration, which should be carried out thoroughly, and reserve hypodermic medication until we have signs of reaction, after respiration and circulation have been partially restored.

Dr. P. F. Barbour :

I have had considerable experience in the administration of both chloroform and ether, and like Doctor Bailey, I fear the giving of either agent as there is always a certain element of danger to the patient. Cocaine sprayed into the noses of a thousand patients would give rise to disagreeable symptoms in a percentage of them. We have no right to expose our patients to the dangers of cocaine in addition to the dangers of a general anesthetic. Doctor Dugan has alluded to the principal objection to giving morphine and atropine before an operation—its effect upon the pupillary reflexes : That is a point upon which all of us are agreed ; the pupillary reflex is one of the best indications we have as to the amount of chloroform or ether the patient has received. Unless there are some especial indications for the use of morphine and atropine, the anesthetist will be very much handicapped by not being able to watch this reflex. In many cases in rectal surgery where the patient has to be more profoundly anesthetized than for any other operation, unless we have something of this kind to indicate the amount of the anesthetic the patient is getting, the anesthetist is put at great disadvantage in telling how profound the anesthesia is and how far he may push it.

In many operations, however, the use of morphine might be of decided benefit. As to treatment of conditions as they arise, Doctor Schachner is entirely right that after the patient has reached the crisis it is too late to give hypodermic injections. The anesthetist ought to give hypodermics if called for long before the patient gets into such a condition. Dr. Bailey's suggestion that nitrite of amyl be used so that in the respiratory efforts the vapor may be gotten into the lungs seem to be an extremely good one. Of all agents that can be used to increase the action of the heart and stimulate the respiratory centers, atropine seems to be the best, and the essayist did not allude to this sufficiently. Hare has reported recently some observations he had made on the action of atropine in a number of cases, especially where accidents had occurred under chloroform and ether. He carried out a series of experiments upon dogs showing that when the respiration and heart were about to fail, atropine by its stimulative action upon these centers brought the animals out quicker than any other drug used. A case is cited in recent medical literature where a patient profoundly under the influence of chloroform suddenly ceased breathing, and the circulation also failed; the surgeon who was tying a ligature in the abdominal cavity at the time grasped the abdominal aorta, and as soon as pressure was made upon this vessel, the pulse again became perceptible at the wrist, the patient immediately began to breathe and soon recovered completely. This suggested to Doctor Hare that atropine would be an excellent remedy under such circumstances. This is in accord with the physiological action of atropine as we understand it. Another measure that I regard as useful in cases of this kind is the application of direct heat over the heart. When the heart has stopped beating I believe there is no application we can make that will produce resuscitation so rapidly as heat, for instance a wet pack at a temperature of 110 or 115 degrees will do much toward restoring the heart's action. Personally I have had few accidents in giving chloroform or ether, but I want to have the pupillary reflexes as a guide to see whether I am giving too much of the anesthetic.

Dr. S. G. Dabney :

It is a little surprising that after having used chloroform for fifty years we are still looking for something to make it safer. I was taught by a professor of therapeutics many years ago to give a hypodermic of morphine and atropine at least half an hour before administering a general anesthetic. Personally I would hesitate to use a ten-per-cent. solution of cocaine in the nose as a spray, and desire to endorse the statement made that in one hundred cases where cocaine in this strength is used there will be as many accidents as would occur from the use of chloroform or ether. Many people have an idiosyncrasy against cocaine the same as we often find in the use of other drugs, so that its use in such strength as a spray is dangerous. So far from obtunding the sense of smell cocaine makes it more acute, because by contracting turgescient nasal tissues, it permits freer access of the odoriferous particles to the olfactory region.

Dr. Wm. Cheatham :

Doctor Barbour expressed my sentiments with reference to preceding the administration of chloroform by atropine and morphine. I have heard all experts raise objections to this plan. In speaking of strong solutions of cocaine the gentlemen have evidently overlooked one point, viz: strong solutions of cocaine are less dangerous than weak solutions if you are to continue the administration of this agent for any length of time. The danger of absorption of cocaine by the nasal tissue is less with a strong than a weak solution. If you use a strong solution in the beginning you shrink the blood vessels immediately, and the absorption will be less than if a weak solution is employed. One good effect of using cocaine in the nose during general anesthesia is that you get the benefit of nasal respiration. Few patients under general anesthesia in the prone position will be able to breathe through the nose without the use of cocaine, and you get all the bad effects of mouth breathing. The mouth becomes dry, filled with tenacious mucus, etc., much more commonly than when there is free nasal breathing. The statistics mentioned by the essayist—one hundred cases—prove nothing; he says there were some irregularity in four cases out of the hundred covered by the report. We might base some rational conclusions on nine hundred or a thousand cases, but a hundred cases prove nothing. Examination of the urine before the administration of chloroform or either is important, but even in this we may be deceived as we all know we may have advanced cases of kidney trouble without the urine showing any of the derivatives. I have not infrequently seen such cases. I reported one case to this society where there was advanced kidney disease, still the urine showed absolutely no derivatives. Doctor Samuel spoke of rythmical traction of the tongue; in my experience this is one of the best methods of resuscitation that we have. The closest call I ever had from the administration of chloroform was in a young robust Irish girl whose eye I enucleated at my clinic at the Louisville Medical College some time ago; the eye had been removed and while I was exhibiting it to the class calling attention to some peculiarities, the patient suddenly ceased breathing. All the methods known for resuscitation were employed without the slightest effect until I put a strong thread through the tongue and made rythmical traction upon it; the patient promptly revived and made a good recovery. Another method I believe of preventing the dangers of chloroform anesthesia is by cutting off the blood supply by means of an Esmarch bandage, for instance one or both legs, and when the operation is nearly completed if the patient shows any bad symptoms, loosen the Esmarch and liberate the so-called good blood, which is often followed by prompt restoration of the circulation, etc. If you want to obtund the centers before the administration of chloroform, I think bromide of potassium continued for some length of time would be less dangerous and equally as efficacious as morphine. The essayist spoke of experts giving chloroform; I am always in favor of experts, but all the deaths we have had in Louisville from chloroform have been when it was

administered by experts. Few deaths are recorded from chloroform in the country where it is impossible to get experts.

Dr. August Schachner :

As stated at the outset, the object of my paper was not to attempt to present anything new or original, but to gather available material as a basis for discussion. The point that I endeavored to make particularly plain was, that we should not lose valuable time in practicing hypodermatic injections while the patient is in the crisis, but in this stage should utilize the time with mechanical means of resuscitation.

I can see considerable advantage in what Doctor Weidner has said about the administration of morphine. As to the use of cocaine, personally I agree with the gentlemen who have spoken, and the ideas expressed in the paper were those of Rosenberg. I would hesitate to use a ten-per-cent. solution of cocaine, as I believe it too strong. Moreover, I think the same thing can be accomplished by the slow administration of the general anesthetic as by the administration of cocaine as advised by Rosenberg, and considering the dangers of cocaine I would hesitate to recommend it.

Speaking of the results of the Hyderabad Commission : In a paper read before this society last year (*American Practitioner and News*) I collected all the arguments which had been presented up to that time, which seemed to be decidedly against the conclusions of the Hyderabad Commission.

Report of a Successful Cæserian Section.

DR. J. WHITRIDGE WILLIAMS, Baltimore, Md.

The Clinical Society of Maryland, April 21, 1899.

THIS patient was a young white woman, age 22, who had never been pregnant before and who first consulted Dr. Kirby last summer. At that time she stated that she had been troubled for several years with pain in the back and lower abdomen and menstrual irregularity. The doctor examined her carefully and found a cystic tumor in the pelvis about the size of a cantaloup, connected he thought with the tube. He advised her to come back in the fall as it was not advisable to operate during the hot weather. At this second visit he found her pregnant and some months later she fell into my hands. I found a well nourished woman eight months pregnant, the fundus reaching up three or four fingers above the xyphoid cartilage and the child presenting by the breech. The pelvic cavity was encroached upon by a tumor that extended almost entirely across its posterior part and filled out the curve of the sacrum. The antero-posterior dimension was reduced from 11 cm. to about 7 cm. or a little less. In other words, a very marked contraction of the pelvis. The tumor presented to the touch a doughy consistence and appeared to be under high pressure. We thought we had to deal with an ovarian cyst and that the chances were it was dermoid in nature. I examined the woman the next day under chloroform and attempted to

push the tumor up into the abdominal cavity, but found, though I introduced the whole hand I could not budge the tumor and concluded that some other means of delivery must be adopted. At that time a number of possibilities suggested themselves as the best means of treatment. In the first place had we seen the woman earlier we could have done a laparotomy, remove the tumor and allowed the pregnancy to go on the usual course, but we found the pelvis now so markedly encroached upon that normal delivery was impossible. The possibilities were these. Should we open the abdomen, remove the tumor, sew up and let labor go on? We felt that it was hardly fair to let the woman go into labor and try to express a full term child with an abdominal wall that presented a cicatrix only a few weeks old. A second proposition was to induce labor, but here we would labor under the disadvantage of leaving the tumor and delivering a child whose chances of living were not great. A third was to let the woman go to full term, puncture the tumor and then let delivery occur. We concluded, however, that the best and most conservative thing to do was a Cæserian section, to take the living child out and then afterwards remove the tumor and thus relieve the woman of both at the same time.

I asked Dr. Kelly to see her with me and he agreed with me that that was the best method. The woman acquiesced in the proposed operation. She stated that this pregnancy was the result of a single copulation and accordingly we estimated the probable time of labor from the date of her last menstrual period and fixed our operation for one week previous to that time. We learned afterwards, however, that her statement was not correct and she went into labor a week earlier than expected.

We operated on Feb. 4th, early in the morning. The woman fell into labor at 3:30 in the morning and was examined by Dr. Dobbin who confirmed our previous opinion as to the position of the child. The cervix dilated to 4 or 5 cm. in diameter, the membranes ruptured and at 7 a. m. when I reached there we prepared to do a laparotomy. The single examination made by Dr. Dobbin was the only one made during the last month of her pregnancy. She was given a bath, thoroughly cleansed and placed upon the table in the horizontal position. I then made an incision in the median line of the abdomen 20 cm. long. The woman was quite fat and there was some hæmorrhage from the wound which was readily controlled, however, by clamps. After we had opened the abdomen the uterus was directly under the wound and we decided by the course of the round ligaments that the placenta was on the posterior wall of the uterus, so we made our incision in the anterior wall 15 cm. long. As soon as we had cut through the wall I passed my hand in, seized the child by the leg, turned and extracted it and the entire time from the beginning of the operation until the child was in the hands of the nurse was something less than three minutes. I then seized the placenta, extracted that and began to close my uterine incision. The uterus was at no time taken from the abdominal cavity. The uterine incision was sewed up by a dozen or fifteen deep sutures, extending through the muscle to the deep decidua but not

through it. I think not more than 4 ounces of blood escaped from the woman during the operation, and the uterus contracted nicely to the size of two closed fists by the time the sewing was done.

We still had the tumor to deal with and again passing my hand I brought up a cystic tumor from the right side; it was not such a cyst as we had expected, but a parovarian cyst filled with fluid. The abdomen was covered with sterile towels and the woman changed in position to that of Trendelenberg. The tumor was then removed in such a way as to leave the ovary on that side and part of the tube; simply removing the tumor. The abdominal wall was then closed with continuous catgut sutures, the muscles with silver wire and the abdominal wall being quite fat we ran catgut through the subcutaneous tissue and closed the skin wound by subcutaneous silk worm sutures. A silver foil dressing was applied with the usual bandages. At the end of the operation the pulse was less rapid than when we began. As soon as the child was delivered the cord was clamped and cut and the infant handed to the nurse. It did not cry at first, but before she took it to the next room for the hot bath it began to cry and so far as I know has been crying more or less satisfactorily ever since.

The entire operation took about 53 minutes, a great part of this being occupied in sewing up the uterus and abdominal walls. The child was in the nurse's hands within three minutes after the operation begun. The woman made a most excellent recovery and left the hospital 33 days after the operation. The highest temperature at any time was 101 and that was only reached twice. The reason for the temperature I think can be found in the condition of the woman's breasts, as she did not wish to nurse the child and it was put in an institution. The breasts were strapped firmly, but in spite of the treatment they became tense and painful. However, I think she recovered as rapidly and with as little discomfort as do four women out of five with normal labors. The dressings were removed after eleven days and a single linear scar was all that was left to show that an operation had been done.

Now a few words on the subject of obstruction to labor by ovarian cysts. Of course a large number of women have ovarian tumors and a large number of these have children without any particular difficulty. That is because the tumor rises up into the abdominal cavity as pregnancy advances, but if for any reason that tumor instead of rising up sinks down into the pelvis, it offers a very serious obstacle to labor. In 1849 an Englishman named Hart collected six cases of this kind and in 1867 Dr. Playfair was able to collect reports of 57 cases, which until recently represented the greatest aggregation of such cases known. In 1897, however, a physician of Aberdeen read a paper on this subject and stated that he had been able to collect 126 other cases which added to those of Playfair make a total of 183, and from these he attempted to draw a number of important conclusions. Out of these 183 cases fairly accurate statements were made as to the nature of the tumor in 110 cases and 50 per cent. of all were either dermoids

or malignant tumors. This is of importance when we remember that the results are worse to the women when the pelvis is impacted by a dermoid than when by an ordinary cyst and statistics show that in fifty per cent. of the dermoid cyst cases women die in consequence. When we ask what was the direct effect of all the cysts upon the women we find that a little over 30 per cent. died either during labor or the weeks immediately following and over half of all the children likewise died during the time of labor. These figures show then very clearly that an ovarian cyst impacted in the pelvis is a matter of grave importance and is a complication that may lead to the death of the woman in something like $\frac{1}{3}$ of all the cases even though properly attended to.

So we ask what is the best method to pursue when we meet with cases of this kind. I may say that the diagnosis is not usually made until the woman falls in labor, because while the woman may complain of some pain and discomfort they usually pass unnoticed; in only about 18 per cent. of the cases has the diagnosis been made previous to labor. If the diagnosis is made, however, what is the best method of treatment? I believe that if a cyst is diagnosed the woman should have an ovariectomy performed just as if she were not pregnant. On the other hand if the diagnosis is not made until a late stage of the pregnancy I should say try to push the tumor up out of the pelvic cavity into the abdominal cavity; if necessary this should be done under anesthesia. Having so displaced the cyst we try to bring down one of the foetal poles and thus prevent the tumor falling into the pelvic cavity again. If we can not do this we are brought face to face with the question whether we shall interfere at that time or allow the woman to go on to term before operating. I decided in my case on Cæserian section at term and I think the results show that I was justified.

In the vast majority of cases, as I have said, the diagnosis is not made until the time of labor. Of course we may try then to displace the cyst first and if we succeed the head will engage spontaneously or by means of high forceps. This is not always a simple matter, however, for we may by pressure produce a necrosis which leads to infection of the cyst and future trouble. If we cannot push the tumor up we find that all sorts of operative measures have been suggested. About eight different methods of treatment have been pursued and under each a certain number of women have fallen victims. A certain number of men leave these cases to nature and as a result the women die. The most popular method of treatment perhaps has been to puncture the cyst through the vagina and then extract the child. Two other methods have been to attempt version or apply forceps and attempt to drag the child past the tumor. In a number of other cases craniotomy has been done and a dead child has been delivered. Others have performed a laparotomy for removal of the tumor and allow the labor to proceed naturally.

To consider all these methods I should say we should not leave the cases to nature, but make up our minds upon some method of treatment. As to the vaginal puncture, that would appear to be the most rational measure, and

if we had known in our case in time the exact character of the cyst we might have done that, but the trouble is one can not tell in many cases whether the cyst is parovarian, dermoid, or not, and the consequence is if we puncture we will in about fifty per cent. of the cases let the contents of the dermoid or a malignant tumor into the abdominal cavity and subject the woman to the chances of death from peritonitis. Again the consequences of dragging the child out over an evacuated cyst is to subject the tumor mass to considerable pressure and the lowered vitality allows of infection from which the woman may die. Of course the application of forceps or any form of version in cases where the pelvis is obstructed is contraindicated unless the tumor is very small. Craniotomy is never indicated on a living child and to perform it on a dead child is only to subject the woman to more trouble. Laparotomy for removal of the tumor and spontaneous labor afterwards has been done several times, but has not proven very satisfactory. To subject a woman to laparotomy and immediately after that another operation is not a light matter and I shall hesitate to adopt it. To remove the tumor by the vagina of course can be done in a certain number of cases, but we are operating in the dark through tissues that may be easily infected.

The consequence is I should say that when we are called to see a woman in labor and find an obstructing tumor that offers serious obstacles to the passage of the child, if the woman be in good shape and competent assistance can be had Cæserian section in the hands of a competent man is the easiest and most conservative way of treating her. By all the other methods we deliver the woman by dangerous proceedings and some weeks or months later have to do a laparotomy any way to remove the tumor, so I think Cæserian section is the proper operation under these circumstances. It may not always be practicable. The country physician may not be able to obtain proper assistance and may not be able to do the operation by himself. I confess I should not like to do it alone and in such a case the best thing to do would be to puncture the tumor and extract the child, but in large cities where competent men can be called in I do not think that risk should be taken.

DISCUSSION.

Dr. B. B. Browne:

This has been a very interesting talk and the resume of the subject has been extremely useful. I have never had any experience with ovarian tumors in pregnancy, but I have seen three cases complicated by fibroid tumors and I think Dr. Williams has laid out the proper plan to be pursued in all these cases.

Exhibition of Dermatological Cases.

Dr. T. C. Gilchrist:

1st. Lupus Erythematosus. This patient has a typical distribution of the disease, assuming on the nose and both cheeks a butterfly appearance. It began on the cheek and then spread. The skin is thickened and covered

with scales, which when removed show pedicles projecting from the under surface. The process of the growth is very slow.

This patient is perhaps even more typical than the other for when the disease attacks the face it generally assumes the acute form. This patient has had the disease for about fifteen years. It began like scratch marks on the side of the nose and then gradually spread over the cheeks. The pedicles under the scales dipped down into the sebaceous glands.

This disease was the chief subject of discussion at the last meeting of the American Dermatological Society and was also one of the important subjects considered at the British Medical Association last year. It is one of the most inveterate diseases of the skin and there are various opinions concerning its etiology. It was at first supposed to be of syphilitic origin and later that it was allied to tuberculosis of the skin, but that theory was abandoned after further investigation. Recently, however, this same theory has come up again, except that it is now believed to be due to a toxine of tuberculosis and not directly to the germ. The tuberculin test has been tried and the disease has yielded to the test but that is not considered sufficient proof of a connection with tuberculosis because other diseases of the skin which have no such connection will also yield to this test. That the lesion itself is tubercular is not admitted by dermatologists.

The treatment practically consists in simple mild remedies in the acute form and stronger ones for the chronic cases, that is, in the acute stage one may use an ointment of zinc oxide, but in the chronic cases perhaps the best results are obtained by an application of carbolic acid.

2. Rodent Ulcer. This case began with a small scab on the left side of the forehead. This was followed by the appearance of a pimple, which after healing left a perfectly square scar. At the lower end of it is what appears to be a keloid. There was no history of injury and I was at first in doubt as to the diagnosis, but a section of the skin examined microscopically showed it to be a rodent ulcer which had been extremely slow in its growth. In the majority of cases those ulcers appear about the age of 40 and treatment of course is total excision.

3. Mollusum Contagiosum. So far as I know this disease has not been reported as having occurred in the colored race, but this is the third case we have seen. The rounded raised edge of the growth with a depression in the center is characteristic. Very often these mollusum growths spread all over the body and I have had two or three medical men come to me who had contracted them from patients. The disease is extremely rare in this country.

Treatment consists in curetting out the bodies. The disease is probably a parasitic origin.

The Doer—Yes, death stared me in the face, and I thought of all I'd ever done.

The Done—Noble fellow, to think of your friends at such a critical moment !
—*New York Journal*.

North Carolina Medical Journal.

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Editorial.

TREATMENT OF CANCER.

While it is undoubtably true that up to the present period our most successful means for combating this disease are distinctly surgical, yet even under favorable circumstances the results are not such as to permit us to relax our efforts in the search for an easier and better method of cure. There is moreover a large class of cases where, either from the length of time which has elapsed during which the cancerous mass has invaded the deeper structures, or the original site of the disease is too remote for surgical interference, the only hope of relief lies in the discovery of some new plan of attack.

Considerable interest has been aroused by the treatment of these inoperable cases with the mixed toxines of erysipias and the bacillus prodigiosus with results that have seemed encouraging. Dr. William B. Coley has given his experience for the last six years with this method of treatment and while some other observers do not seem to have had the same amount of success, he has shown quite remarkable results in certain varieties of cancer—notably, the spindle cell sarcoma. Of 20 cases of this class receiving the mixed toxine treatment all were improved, and in 10 the tumor completely disappeared. The round-cell sarcoma does not seem to be nearly so amenable to treatment, as out of 80 cases, only 2 were cured, remaining well 1½ and 3 years respectively and 35 were improved. Since 1895, Coley has treated 8 cases successfully, the diagnosis being confirmed in 7 of these cases by means of the microscope.

The risk in using the toxine treatment consists in the employment of too large a dose (Coley recommends a small initial dose, which is gradually

increased) and in sepsis. Where these two dangers are carefully guarded against there does not appear to be any great risk, as in over 200 cases treated by Dr. Coley personally, death occurred in but two as a result of treatment. When we consider that all of the cases undergoing this treatment were of desperate character, most of them inoperable the favorable results given above would certainly justify a reasonable belief in the ultimate success of this or some similar plan of treatment.

In the meantime considerable advance has been made in the surgical treatment of mamary cancer as a result of the radical operation of Halstead and others. The mortality rate from operative measures has steadily declined with improved technique, and the number of permanent cures has increased, as may be seen from the following: In 1878 of 170 cases operated upon by Billroth the mortality was 23.7 per cent., while 82 per cent. of the remaining cases whose subsequent history could be obtained suffered a recurrence, only 8.3 per cent. remaining well and free from return of the disease 3 years and more after operation.

Since that time several operators have shown anywhere from 25 per cent. to 50 per cent. of cases free from recurrence. As regards the immediate effect of the operation Halsted has reported 76 consecutive operations without a death and others have reported equally favorable results. From this it would seem that operative measures have about reached the highest possible point of efficiency, unless a still greater success may be achieved by a more general resort to operation earlier in the disease. The next most important advance in the management of these cases will most likely be along some such line as that employed by Dr. Coley.

THE MEETING OF RAILWAY SURGEONS IN RICHMOND.

The city of Richmond is to be specially favored by the meeting within her gates of two important and highly interesting medical bodies. The International Association of Railway Surgeons, composed of representatives from Canada and Mexico, as well as from the United States, will meet in that city May 31st, and at the same time the Association of Southern Railway Surgeons, made up of the local surgeons along the lines of the Southern Railway will hold their usual annual meeting. It goes without saying that the occasion will be one of unusual interest and profit to that large class of medical men, part of whose duty it is to treat railway injuries. We have no doubt that the management of contused and lacerated wounds, as well as numerous other characteristic injuries, which almost make railway surgery a special branch, will receive full and free discussion and result in helpful suggestions. Dr. C. W. P. Brock of Richmond is chairman of the committee of arrangements, and Dr. Geo. Ross, Ex-President of the International Association is President of Association of Southern Railway Surgeons and has issued one of his characteristic circular letters extending an urgent invitation to all members of the association to be present. It will be a matter of great regret to the surgeons living in North Carolina that the meeting in Richmond conflicts with the North Carolina Medical Society, which will assemble in Asheville, N. C., on May 30th.

News and Items.

Liquified Air has been suggested as having a possible use in medicine as a means of cooling the sick room during the hot season.

The Jeffersonian is a new college magazine established and conducted by the students of Jefferson Medical College, Philadelphia. It is strictly an undergraduate magazine and should appeal to all alumni of this renowned school.

Whisky Biscuits.—"Whisky biscuits" are sold in some of the New York bakeries in the vicinity of the public schools. They contain jelly saturated with alcohol. An eight-year-old boy ate five of them and became temporarily insane.

Not Ready for Sacrifice.—"The doctor would like to see you inside," said the maid to the caller in the reception room.

"Not much," said the startled patient. "He can't try an X-ray on me."
—*Philadelphia Times*.

A Law Enforcing Professional Secrecy.—Governor Roosevelt has signed an amendment to the Civil Code which prohibits absolutely a physician from divulging any information concerning one of his patients, either before or after the death of the latter. Up to the present time the insurance law has permitted the physician to testify concerning the physical condition of a policy-holder.

Toledo Ohio claims the first place as the healthiest city in the world. With a population of 150,000, according to the report of the Department of Health, the death rate during 1898 was only 10.332. But now Columbus Ohio comes forward with a similar claim and shows a rate of 9.80. The State of Ohio is to be congratulated upon having within her borders two such salubrious cities.

Dr. William Pepper has presented to the University of Pennsylvania library, a collection of 500 medical books from the library of his father, the late Dr. William Pepper. The collection contains works of reference, treatises on special subjects and transactions of medical societies. Through Dr. James Tyson, a gift has also been made to the library, by H. Vail, consisting of climatologic observations taken at Santa Barbara, Cal., from 1888 to 1898, inclusive.

Resignation of Dr. John N. Upshur.—*The Richmond Journal of Practice* has the following to say regarding Dr. Upshur's resignation from the Chair of Practice in the Medical College of Virginia: "For seventeen years he has held responsible positions in this institution, the first being Acting Professor of the Practice of Medicine in 1882, and later, Professor of Materia Medica and Therapeutics for ten years. Since 1894 he has occupied the chair which he has just vacated. In all of his positions he was recognized as an able and progressive teacher. It is his purpose to devote his entire time to the practice of his profession."

Dr. Haig considers meat-eating, tobacco-smoking and tea, coffee and beer-drinking all contributory causes of suicide. The diet from which the greatest amount of uric acid is derived is the most dangerous. The conclusions seem doubtful.

A Committee from the University of Pennsylvania, consisting of Prof. Hermon V. Hilprecht, Dr. Stewart Culin and Mrs. Cornelius Stevenson, has been appointed to arrange for a representation of the University of Pennsylvania at the Paris Exposition in 1900. This committee will work in conjunction with those of Harvard, Yale and other American representatives. The University of Pennsylvania will prepare the exhibition on anthropologic and ethnologic specimens.

The Regulation of Marriage in North Dakota.—According to the *Philadelphia Medical Journal*, the so-called "Creel Bill" to regulate marriage has passed in North Dakota Senate. If it becomes law, no marriage license can be granted in that State unless applicants present a certificate from a legally established Board of Examiners showing that they are free from certain diseases, such as tuberculosis and hereditary insanity.

The first number of a new magazine with the title "*A Monthly Journal of Medicine, Surgery, and Hygiene*," has just appeared. It is edited by Wan Tun Mo, a diplomat of the Imperial Medical College, Tiensin, the Resident Surgeon, Alice Memorial Hospital, Hong Kong. The publication of this journal marks an epoch in the history of Western medical science in China. Slowly but surely the more enlightened Chinese are becoming convinced of the superiority of western methods of medicine, surgery and hygiene—*British Medical Journal*.

TO HIS DELINQUENT PATIENT.

If I should die to-night—
 And you should come to my cold corpse and say,
 Weeping and heart-sick, o'er my lifeless clay;
 If I should die to-night—
 And you should come in deepest grief and woe,
 And say, "Here's that \$10 that I owe,"
 I might arise in my great white cravat
 And say, "What's that?"
 If I should die to-night—
 And you should come beside my corpse to kneel,
 Clasp my bier to show the grief you feel;
 I say if I should die to-night—
 And you should come to me, and there and then
 Just even *hint* 'bout paying me that ten,
 I might arise awhile—but I'd drop dead again.

—*Gross Medical College Bulletin.*

Spick—A new doctor has moved in next door, but his very name would kill his business.

Span—What is it?

Spick—Phil Graves.—*Col. Med. Journal.*

Book Reviews.

Saunders' Medical Hand Atlases.—External diseases of the Eye, including a Brief Treatise on the Pathology and Treatment. By Prof. Dr. O. Haab of Zurich. Authorized Translation from the German. Edited by G. E. de Schweinitz, A. M., M. D., Professor of Ophthalmology in the Jefferson Medical College, Philadelphia; Consulting Ophthalmologist to the Philadelphia Polyclinic; Ophthalmic Surgeon to the Philadelphia Hospital and to the Orthopedic Hospital and Infirmary for Nervous Diseases. With 76 Colored Plates and 6 Engravings. Philadelphia: W. B. Saunders, 925 Walnut street, 1899.

The sale of Saunders' Medical Hand Atlases has been unprecedented (200,000 copies), and in casting about for an explanation we find it is the usefulness of these works and the low price at which the publisher offers them to the profession.

The Atlas, External Diseases of the Eye, should be of especial value to the practitioner, as the 76 colored plates are true to life, and accurately present diseased conditions which the doctor is certain to encounter, while the accompanying text gives full description and treatment.

Diseases of the Ear, Nose and Throat and Their Accessory Cavities, by Seth Scott Bishop, M. D., D. C. L., LL.D., Professor of Diseases of the Nose, Throat and Ear in the Illinois Medical College, Professor in the Chicago Post-Graduate Medical School and Hospital, Surgeon to the Post-Graduate Hospital, one of the Editors of the Laryngoscope, etc. Second Edition. Thoroughly Revised and Enlarged. Illustrated with Ninety-Four Chromo-Lithographs and Two Hundred and Fifteen Half-Tone and Photo-Engravings. 6½x9½ inches. Pages xix-554. Extra Cloth \$4.00, or Half-Russia \$5.00 net. The F. A. Davis Co., Publishers, 1914-16 Cherry St., Philadelphia.

The first edition of this book was accorded a very flattering reception by the profession, and from a perusal of this volume, the second edition, it would seem that this fact had acted as a stimulus to the talented author, as he has thoroughly revised his book and added many improvements. Notable among these is the enlargement and greater detail in the treatment of the various diseases under this heading. Two new chapters have been written, one on "Related Diseases of the Eye and Nose," and the other on "Life Insurance Affected by Diseases of the Ear, Nose and Throat." Illustrated articles on "Direct Laryngoscopy, or Autoscopy;" and on "Pachydermia Laryngis," etc., have been added. Many new colored drawings and half-tone engravings from photographs of interesting and instructive cases, specimens, and preparations have been made for this edition.

The book is without question an authority on the subject of the ear, nose and throat.

The Cosmopolitan for May presents many attractive features. The United States Postal Service, which is called the greatest business organization in the world, is the subject of a most interesting paper by Postmaster General, Charles Emory Smith. The Ideal and Practical Organization of a Home, by Von Buren Denslow, LL. D., is one of the prize essays on this subject, the first of which appeared in the *Cosmopolitan* last month. Science in the Kitchen, by Anna Leach, shows the conduct of culinary department in the homes of some well-to-do folks. Adventures and Death in the Far North, A Railway to the Klondike, How the French Crossed the Channel, The Awakening, The Princes of Trebizond, Larry McNoogan's Cow, Fire Appliances, Wireless Telegraphy, The Moon Within Forty Miles, About Clothes and Fashion, show that this number is truly intended for every man according to his needs.

Review of Medical and Surgical Progress.

The Vitality of Epithelial Cells, and the Etiology of Cancer.—What the nature of the irritant may be that causes the localized growth of epithelial cells which we call cancer, we are yet no nearer knowing than we were before the demonstration of its exact pathology, more than half a century ago. Notwithstanding all the claims that have been made of the casual influence of external biologic factors, parasites from bacteria, and fungi, schizomycetes, and blastomycetes to various forms of animal parasites, gregarines and protozoa generally, we are no nearer the solution of the problem than we were before.

Of late the subject has been approached from the other side, the essential vitality of epithelial cells and their reaction to various irritants, and some most interesting results have been obtained by various observers. In Dr. Hektoen's review of this subject for the first number of "*Progressive Medicine*"* (the advance sheets of which are in our hands), we find some striking observations on the subject collated. Ljunggren, a Scandinavian physician, for instance, found to his surprise that he could preserve carefully sterilized bits of human skin in sterile human ascitic fluid for months, and that the cells of the tissues retained their vitality. Three months after their removal from the body the cells of the deeper layers show well stained nuclei, and good protoplasmic structure. Successful transplantation was made with pieces kept in such sterile fluid for a month. Small pieces of the transplanted skin were removed at varying intervals, and it was found that a marked proliferation of epithelial cells showing many nuclear figures had occurred. Special precautions were taken which absolutely assured the absence of cells that might have grown in from the surrounding cutaneous margin and so vitiated the conclusions. The transplanted cells not only grew over the raw surface, but penetrated, also, into the granulation tissue beneath, after the manner of a beginning carcinomatous growth.

Almost more interesting and suggestive than these are the observations made by Loeb here in America on epithelial regeneration. The abstract of them by Dr. Hektoen in "*Progressive Medicine*" is so clear and succinct that we copy part of it verbatim: "From the margin of a tissue-defect huge epithelial protoplasmic or plasmodial masses move in a sliding manner over the naked surface, inclosing and dissolving the crust and other obstacles. Regenerating epithelium readily removes such substances as cartilage when placed in its way. Below the protoplasmic layer epithelial cells wander in from the margins of the defect, and often grow down into the connective tissue, apparently checking the growth of the latter. The process is closely allied to changes in carcinoma. At the same time active changes, such as mitoses, occur in the epithelial cells removed some distance from the margins of the wound. * * * Loeb believes that the wandering of the cells as outlined, is in response to stereotropism, and forms a determining factor in

inducing mitosis in the remaining cells." The pregnant significance of these observations, especially the apparent action at a distance of epithelial elements in arousing epithelial cells into reproductive and germinal activity, can scarcely be overestimated. This is the essence of carcinoma, though in healthy subjects the vital resistance may be sufficient to restrain the morbid overgrowth that would otherwise result.

According to Loeb, "if a small bit of epithelium is placed in the centre of the crust covering a defect in the skin, it begins to send out processes in all directions into the crust, the cells acting as separate organisms, independent of blood supply or nervous influence." We are evidently closely in touch, in these manifestations, with the as yet inexplicable vital forces that we see at work in all their untrammelled energy and power in cancer. Further observations are needed to give the deductions from these observations practical application. They constitute, however, the most hopeful aspect of the present pathological work on cancer as far as regards the near prospect of discovering its etiology. Their value as additions to biological science, especially to that mysterious problem, the struggle for life among the various cells of the body tissues, can scarcely be overestimated.

*Progressive Medicine," a Quarterly Digest of New Methods, Discoveries and Improvements in the Medical and Surgical Sciences. Volume 1, No. 1, March, 1899. Edited by Hobart A. Hare, M. D. Lea Brothers & Co., New York and Philadelphia.

Cancer.—In the current number of the *Practitioner*, "A Special Cancer Number," the geographical distribution of cancer in England and Wales, the question of its infectivity, its alleged increase, and its prevention and cure, are succinctly reviewed by various writers. Unhappily, theories, experience, and experiments, have added but little to our exact knowledge of the origin and treatment of this terrible malady; and the profound obscurity which surrounds it is not appreciably lightened by the various contributions to the subject. All that seems to be known with certainty is, that no specific method of treatment can be relied upon. Professor Watson Cheyne and many others are of the opinion that cancer is at first local rather than constitutional, and that if it is detected early and operated upon freely the patient may be cured. The fact remains, however, that, in a great majority of cases, even the most radical operations confer but a relatively slight increase of the patient's life. It is not even definitely known whether the common belief that cancer is increasing has any justification in fact. Most authorities take the increase for granted, but Dr. Newsholme, who contributes some most interesting statistics, hold that improved notification, more accurate diagnosis, and more frequent necropsis, are responsible for the apparent increase.

The difficulty of dealing with records of disease is longstanding. Thus the seeming formidable increase in insanity, from which so many profound morals have been drawn, is probably largely explained by the fact that the exchequer subventions tempt Boards of Guardians to send their weak-minded paupers to lunatic asylums. It is thus that unsuspecting causes often

account for variations in statistics. However this may be, it is claimed that one out of every nine women in this country who reach the age of 45, and one out of every fourteen of the men who attain that age, die of cancer; a death-roll more than four times that of typhoid fever, and larger, notwithstanding its limited field of activity, than that of either measles or whooping-cough. Dr. Newsholme makes out a strong case for his theory, and we can but hope that his statistics, terrible as they are, portend a final triumph for medical science over this special enemy of middle life and old age.

From Dr. Newsholme's paper it would appear that the irritating effects of the products of imperfect coal combustion are much more apt to produce cancer than the handling of crude coal, though coal-heavers have a somewhat high proportional cancer rate. The low mortality figure for coal miners suggests that they enjoy a comparative immunity from cancer as well as from phthisis. Increased atmospheric pressure has been suggested as a possible explanation of this alleged immunity. The consumption of malt liquors has been cited as a predisposing cause of the disease, and this is supported by de Becker's starch-cell theory. The autositic theory, which, in the light of recent pathology, ascribes cancer to a reversion of the natural cells, or cell elements, to the primitive amœbiform condition from which all cells have emerged and in which a few persist, has also been advanced as an explanation of the disease. It is claimed that the autositic cell, which becomes a quasi-independent parasite, preys, exactly as a parasite would, upon the cells of the surrounding healthy tissues, and, sooner or later, causes the death of the adjacent normal cells, ultimately bringing about the somatic death of the whole organism.

Sir James Paget says that "cancer is a disease of degeneracy, the frequency of which increases as age advances." Why this is so remains unexplained, as the cause of the disease remains unknown, and the wisest cannot say why the young escape whilst men and women of more advanced life are afflicted in such numbers. The theory of mental anxiety does not seem to be borne out by the fact that the mortality figure for medical men, whose anxieties and responsibilities are so great, is only 43, while it is as high as 70 for brewers. Neither do the conditions of town life afford any explanation. Although the record of deaths from cancer in London is exceptionally high, the records of many other large cities are proportionately low.

The ætiology and histology of cancer form the subjects of Mr. H. G. Plimmer's paper. Mr. Plimmer, who is pathologist to St. Peter's Hospital, records the result of his extensive investigations, which have led him to the conclusion that cancer is of parasitic origin. During the past six years he has microscopically examined 1,278 cancers in 1,130 of which he found parasitic organisms. He has been able to isolate an organism which, in certain animals, was able to cause death by the production of tumours in various parts. Although as yet it cannot be positively stated that Mr. Plimmer has verified his theory as to the ætiology of cancer—he himself

admits that there may be more than one cause—his investigations are likely to result in a valuable addition to our knowledge of the subject. If cancer is of parasitic origin, it must, as the editor of the *Practitioner* points out, be regarded as communicable by inoculation. Mr. Plimmer's experiments may or may not ultimately establish the infectivity of cancer, but, apart from any pathological theory, there is much in clinical observation to suggest that the disease is, occasionally, at least, communicated in the same way as tuberculosis.

Mr. D'Arcy Power, in his article on "Cancer and Cancer Houses," contributes some curious observations on the remarkable manner in which the disease is distributed, and the way it seems to cling to certain spots and groups of buildings irrespective of their size and age. The following is a case in point:—

Miss B., aged 45, housekeeper, lived in a certain house in a suburb of London for 13 years, and died of cancer of the stomach in 1884. Miss T., aged 47, who had lived in the house for 20 years, then became housekeeper, and occupied the bed room previously used by Miss B. In October, the following year, 1885, Miss T. died of cancer of the liver. Mrs. J., aged 67, who had lived in the house for 8 years, succeeded to the place and bedroom successively occupied by Miss B. and Miss T. Mrs. J. died of cancer of the breast and uterus in 1893. Each of these patients appeared to be in perfect health until they took one another's place as housekeeper. There was no blood relationship between them.

The paper on "The Geographical Distribution of Cancer," by Mr. Alfred Haviland, is extremely interesting. The result of his enquiries is that in England and Wales limestone districts are always associated with the lowest mortality from cancer, and flooded clays with the highest. Mr. Haviland has mapped out the sanitary districts, and appears to have very satisfactorily established his facts.—*Medical and Surgical Review of Reviews, London.*

Prevention of Cancer of the Uterus.—Dührssen (*Deutsche med. Woch.*, Jan. 26) asserts that in Germany cancer of the uterus produces a death-rate three times as high as that from puerperal fever, and among women, between 46 and 50, equal to that of the German army during the Franco-Prussian war. He proposes (1) that every woman should be warned of this danger and taught the symptoms so that she could seek advice early. At present only 10 to 30 per cent. of the cases are operable when first seen, and of these only a third or a quarter, forming about one-tenth of the whole, are definitely cured. (2) When a woman seeks advice for any abnormal discharge or hæmorrhage, she should be examined thoroughly, bimanually, and with the speculum, and if these methods reveal nothing wrong the curette should be used and a piece of the mucous membrane excised for microscopic examination.

Better than the early diagnosis and removal of carcinoma is its prevention. In every woman at the climacteric period it is not only justifiable but

urgently advisable, if there be any abnormal discharge or hæmorrhage, especially profuse menstruation, to destroy completely the mucous membrane, from whose epithelium carcinomata grow, and which in such a case is invariably abnormal. Sneguireff's vaporisation (steam) method (*v. "Review,"* Vol. I, p. 103 and p. 223) is well adapted for this purpose. Another method is to extract the body of the uterus by the writer's operation of anterior col-pœliotomy (*v. "Review,"* Vol. II, p. 192,) to split up the anterior wall vertically in its whole length, and to excise the mucosa completely, cutting off the vaginal portion of the cervix at the same time. The wounds are then sutured and the uterus is replaced. Säger has proposed the introduction of zinc chloride tents, but this is painful, and frequently unsatisfactory, as islets of mucous membrane may be left from which the whole mucosa is quickly regenerated.

In younger women, in whom it is of importance not to destroy the functional activity of the uterus, a relative immunity can be attained by performing Schröder's high amputation of the cervix, since cases of cancer of the body form only 3 to 10 per cent. of the total number and offer a better prospect of cure than those of the cervix.

v. The above abstracts are from the Medical and Surgical Review of Reviews, London, England. Nathan E. Boyd, M. D., Editor. This magazine gives in abstract form the cream of Medical literature. Price \$5 per year.

Surgical Hints.—Never allow a room to be swept or dusted just before an operation. Cover everything with wet sheets, if necessary, so as to prevent the raising of dust.

When you have blood on your hands, first wash them in pure water. Using soap at first is a mistake, as soapy water does not dissolve blood rapidly. Clear water and a nail-brush should come first, soap next.

In all amputations, remember that the loose muscles retract more than those which are attached to the bone. Hence it is better to sever the loose muscles first, and the attached ones next, so that the ends may be of equal lengths.

If you believe that the operation has been a clean one, leave the wound alone, if not an infected one: The best surgeons usually apply but one dressing, the first. When this is removed the stitches are taken out, and the wound only needs a clean covering for a few days.

Before giving ether to patients suffering from catarrh of the nasal passages, wash these out with an alkaline solution. This will, by cleaning out the secretions, allow much easier breathing, and hence increase the facility with which anesthesia can be induced.

Scalp wounds should always be stitched, if of any size. But always remove the stitches very early; otherwise they may act as setons, and lead to suppuration which, if it reaches the loose layer under the aponeurosis, is

likely to be serious. These wounds only gape if the scalp muscle or its aponeurosis is incised, and a very few stitches are needed.

In cases of felon, find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen. The amputation, however, is best delayed until the septic process is overcome, or else the flaps will probably die, and the time needed for healing by granulation will be greater than that taken up in previous antiseptic treatment.—*International Journal of Surgery, January, 1899.*

Medical Society of the State of North Carolina.

Program of the Forty-Sixth Annual Meeting, Tuesday, Wednesday, Thursday and Friday, May 30, 31, June 1 and 2, 1899.

OFFICERS AND COMMITTEES.

President—L. J. Picot, M. D., Littleton.

Vice Presidents—I. W. Faison, M. D., Charlotte; H. H. Dodson, M. D., Milton; J. W. White, M. D., Wilkesboro; W. C. Brownson, M. D., Asheville.

Secretary—Geo. W. Pressly, M. D., Charlotte.

Treasurer—G. T. Sikes, M. D., Grissom.

Orator—H. S. Lott, M. D., Salem.

Essayist—C. L. Minor, M. D., Asheville.

Leader of Debate—J. P. Munroe, M. D., Davidson.

Board of Censors—W. O. McDowell, M. D., Scotland Neck; H. H. Harris, M. D., Wake Forest; J. H. Tucker, M. D., Henderson.

Publication Committee—R. J. Brevard, M. D., Charlotte; J. C. Montgomery, M. D., Charlotte; R. D. Jewett, M. D., Winston; H. T. Bahnson, M. D., Salem.

Legislative Committee—R. H. Lewis, M. D., Raleigh; G. T. Sikes, M. D., Grissom; Abner Alexander, M. D., Columbia; James McKee, M. D., Raleigh; H. A. Royster, M. D., Raleigh.

Obituary Committee—Geo. W. Long, M. D., Graham; J. A. Reagan, M. D., Weathersville; K. P. Battle, M. D., Raleigh.

OFFICERS OF SECTIONS.

Pathology and Microscopy—E. B. Glenn, M. D., Chairman, Asheville.

Anatomy and Surgery—Goode Cheatham, M. D., Chairman, Henderson.

Medical Jurisprudence and State Medicine—Thos. F. Costner, M. D., Chairman, Lincolnton.

Obstetrics—W. W. McKenzie, M. D., Chairman, Salisbury.

Gynecology—Wm. A. Graham, M. D., Chairman, Charlotte.

Practice of Medicine—Ben K. Hays, M. D., Chairman, Oxford.

Materia Medica and Therapeutics—C. S. Mangum, M. D., Chairman, Chapel Hill.

Chemistry and Physiology—Joshua Tayloe, M. D., Chairman, Washington.

FIRST DAY.

Tuesday, May 30th, 1899, 10 o'clock, a. m.

The Society called to order by Dr. M. H. Fletcher, of Asheville, Chairman of the Local Committee of Arrangements.

Prayer by Rev. W. M. Vines, Pastor First Baptist Church of Asheville.

Address of Welcome by Locke Craig, Esq.

Response by Benj. K. Hays, M. D., of Oxford.

Roll Call.

Presidents' Message.

Appointment of Committees.

Report of the Section on Practice of Medicine, Benj. K. Hays, M. D., of Oxford, Chairman, "The Continued Fevers of North Carolina."

J. Howell Way, M. D., of Waynesville, "Clinical History and Prognosis of Continued Fever as Seen in the Mountain Section of N. C."

W. L. Robinson, M. D., of Danville, Va., "Treatment of Typhoid Fever."

Report of Committees.

Adjournment.

3:30 o'clock, p. m.—Report of Committees.

Report of the Section in Practice of Medicine (continued.)

James M. Parrott, M. D., of Kinston, "Hemorrhagic Fever."

J. F. Highsmith, M. D., of Fayetteville, "Typhoid Fever as met with in Fayetteville and surrounding country."

Jno. E. S. Davidson, M. D., of Lowesville, "Meningitis."

R. E. Zachary, M. D., of Wilmington, "Pernicious Malarial Fever."

Wm. J. McAnally, M. D., of High Point, "Chronic Gastro-Intestinal Catarrh."

Report of Section on Pathology and Microscopy. E. B. Glenn, M. D., of Asheville, Chairman, "Study of the Bacteriology of Specific Urethritis."

Paul Pacquin, M. D., of Asheville, "Biology and Pathology of Mixed Infection in Tuberculosis."

Volunteer papers under this section.

Report of committees.

Adjournment.

SECOND DAY.

Wednesday, May 31st, 1899, 10 o'clock A. M.

Appointment of committees.

Report of committees.

Report of Section on Obstetrics.

W. W. McKenzie, M. D. of Salisbury, Chairman—"Antiseptic Midwifery."

J. W. Long, M. D. of Salisbury—"Ectopic Pregnancy."

I. W. Faison, M. D. of Charlotte—"The Management of Normal Labor."

David A. Stanton, M. D. of High Point—"The Application of Forceps in High Presentations."

Report of the Board of Medical Examiners.

Report of the Section on Medical Jurisprudence and State Medicine.

Thos. F. Costner, M. D. of Lincolnton, Chairman—"Juvenile Criminals."

G. A. Ramsaur, M. D. of China Grove—"Propagation of Typhoid Fever and other Infectious Diseases."

Robt. L. Gibbon, M. D. of Charlotte—"Juvenile Criminals."

12 M. Conjoint meeting with the N. C. State Board of Health.

Adjournment.

2:30 o'clock, p. m.—Election of Officers for 1900.

Adjournment into the hands of the Local Committee of Arrangements.

8:30 o'clock, p. m.—Annual Oration—"The Practice of Medicine," by H. S. Lott, M. D., of Salem.

Annual Essay, by Chas. L. Minor, M. D., of Asheville.

THIRD DAY.

Thursday, June 1st, 1899, 10 o'clock, a. m.

Report of committees.

Report of section on Gynecology. Wm. A. Graham, M. D., of Charlotte, Chairman.

Chairman's Report.

Joseph Price, M. D., of Philadelphia, "The Importance of Early Operation in Pelvic Disease."

Selection of Place and Time for Next Meeting.

Report of Section on Anatomy and Surgery.

Goode Cheatham, M. D., of Henderson, Chairman, "Asepsis and Antisepsis in Surgery."

F. T. Meriwether, M. D., of Asheville, "Some Remarks Upon Coley's Treatment of Malignant Growths."

M. Bolton, M. D., of Rich Square, "Interesting Case of Renal Calculus."

R. E. Zachary, M. D., of Wilmington, "Chronic Ulcers of the Leg and the Different Methods of Treatment."

W. B. Pritchard, M. D., and John A. Wyeth, M. D., of New York City, "Report of a Case of Brain Tumor Relieved Symptomatically by an Exploratory Operation Upon the Skull."

Adjournment.

3:30 o'clock, p. m.—Report of Committees.

Report of Section on Materia Medica and Therapeutics.

C. S. Mangum, M. D., of Chapel Hill, Chairman, "Progress in Serum Therapy."

E. A. Moye, M. D., of Greenville, "Aconite Poisoning, Its Diagnosis and Treatment, with Report of a Case."

J. C. Rodman, M. D., of Washington, "The Use of the Normal Salt Solution in the Treatment of Disease."

E. B. Goelet, M. D., of Saluda, "Electricity as an Aid to the Physician and Surgeon."

Annual Discussion—J. P. Munroe, M. D., of Davidson, Leader, "Conservatism in Surgery."

Report of Cases, Joshua Taylor, M. D., of Washington.

Volunteer Papers.

Adjournment.

FOURTH DAY.

Friday, June 2nd, 1899, 10 o'clock, a. m.

Report of Committees.

Report of the Committee on Pittman Prize.

The Pittman Prize Essay by the Author.

Unfinished Business.

Volunteer papers.

Unread Papers in any Section.

Miscellaneous Business.

Final Adjournment.

N. B. Volunteer papers may be read as the closing papers of their appropriate section, with the consent of the Chairman.

THE PITTMAN PRIZE.

A prize of \$100 will be given for the best essay on a subject pertaining to medicine. Provided, 1st, That it shows some originality on the part of the author. 2nd, That it comes up to a standard of excellence determined by the committee. 3rd, That the author write under an assumed name, that he shall place this assumed name upon the outside of a sealed envelope within which envelope is contained the real name of the author, that the envelope so arranged shall be handed in to the committee along with the essay. 4th, That the contestant be a member of the State Medical Society of North Carolina. Essays may be handed to the Secretary during the meeting or sent to him at any time previous.

This prize is the gift of one who honored the society by his life and character, the late Dr. N. J. Pittman, and it is worth striving for, not only for the reward and honor, but also in memory of the giver and for the interest of the Society.

We urge this matter upon the attention of every member of the Society, and hope that we may have a number of essays for consideration by the committee.

TRANSPORTATION.

Mr. W. H. Fitzgerald, commissioner for the Associated Railway of Virginia and the Carolinas, has kindly granted the following rates:

Blacksburg, S. C	\$ 4.65
Charlotte	6.35

Danville, Va.	9.60
Fayetteville	11.75
Forest City	4.50
Greensboro	7.75
Goldsboro	12.80
Henderson	11.80
Hickory	4.05
Lattimore	5.25
Maxton	11.75
Marion	2.25
Mooresboro	5.00
Durham	9.80
Newton	4.45
Norfolk, Va.	18.45
Raleigh	11.00
Rutherfordton	4.25
Rural Hall	9.40
Sanford	11.00
Selma	12.00
Shelby	5.75
Suffolk, Va	17.85
Wilmington	14.85
Winston-Salem	8.80
Weldon	15.20

for the round trip to Asheville and return.

Tickets will be on sale May 24th and 25th for the Board of Examiners and applicants; May 28th, 29th and 30th for the meeting of the Society. All tickets good until June 14th. Your local ticket agent can give you any other information. The above prices from junctional points; proportional rates from any point in the State.

Special rates will be given at the hotels:

Battery Park	\$2.50
Berkley	2.00
Swannanoa	1.50
Oaks	1.50

A cordial invitation is extended every physician in the State to be present at this meeting. The members of the Society are especially urged to come and help make the semi-centennial year a notable one in the history of the Society. Let every man talk Society from now on and bring any physician, who is not a member, with you when you come.

Fœtid Feet :—

R. Dest. fennel oil, Oj.
 Chloral hydrate, gr. xxxv.
 Borax, gr. xv.

M. Sig. Wash the feet night and morning.—*The London Practitioner.*

Reading Notices.

ULTRO-OVARIAN PAIN.—Prompt relief, unaccompanied by habit or untoward after-effect, is what the up-to-date practitioner desires most in these cases. If the pain is over the lower border of the liver, or lower part of the stomach or in short, be it headache, sideache, backache or pain of any other description caused by suppressed or irregular menstruation, it will yield to five grain tablets of Anti-kamnia. This dose may be repeated in an hour or two, if needed. For very prompt relief, it is advisable to crush the tablets and swallow them with a little wine, diluted whisky or toddy.—*Ohio Medical Journal*.

Messrs. Finger & Anthony, Electro-Platers and Manufacturers, Salisbury, N. C.:

GENTLEMEN: Let me thank you and congratulate you heartily, for the beautiful plating that you have done for me. No one could tell but the instruments were just from the manufacturer's shop—the plating and finish are perfect—especially so on the obstetrical forceps, which had been almost ruined by acids and corrosives. There is no use of throwing away instruments for the want of polish and plating when such beautiful work as you do can be done. You can count on any and all such from me when I have any to do.

Yours truly,

J. E. SMOOT, M. D.

Concord, N. C., April 12, 1899.

SANMETTO ALWAYS RELIABLE IN STRENGTH.—I have one word of praise to say for Sanmetto, viz: that the last bottle gives the same results as the previous one, or in other words, Sanmetto is always reliable in strength.

MARK C. MYERS, M. D.

Kansas City, Mo.

"VIN MARIANI" is essentially the brain and nerve tonic of those who have talent and genius. These it is who compose the great army of intellectual workers, and the ravages made upon their nervous systems by the demands made upon them are at times truly appalling. This damage and consequent drain yield to nothing more quickly than to "Vin Mariani." The most noted European physicians, literateurs, musicians, singers, artists and diplomats have sent the most flattering letters to M. Mariani extolling his product. Not only these but crowned heads as well have been mentally invigorated and rejuvenated by "Vin Mariani" and never tire of speaking words in its praise. It must be acknowledged that unsolicited testimonials, couched in such glowing terms, from such sources, are the best evidence possible that can be afforded for the merits of the preparation. When "Vin Mariani" becomes as well known in this country as it is in Europe, it will be adopted as one of the indispensable remedies in the household.—*The St. Louis Medical and Surgical Journal*, May, 1899.

FAMILIAR CLINICAL PICTURE.—One of the most common class of cases is that in which there are no well defined characteristic symptoms of organic diseases but in which there are disturbances of practically all the functions of the body. This condition is variously termed general debility, malnutrition, general atony, etc. The symptom-group is an exceedingly complex and varied one, but the most striking disturbances are those connected with the processes of metabolism; the patient is unable to replace by food the active waste occasioned by the physiologic functions. In consequence of this, nutrition suffers, vital force

becomes diminished and there is functional disturbance of practically all the organs of the body. The stomach and the processes of digestion become partially enfeebled and as a consequence there arise the symptoms of atonic dyspepsia, with lack of appetite and inability of the digestive organs to prepare the food for assimilation. The patient's vital powers are at a low ebb and nature's method of recuperation, that is, by assimilation of food, is effectually inhibited by inability of the organs to furnish the required properly prepared nourishment. Every physician has many times realized the absolute uselessness in these cases of the ordinarily employed tonics, iron, arsenic and strychnine. It is soon apparent that the remedies are either not absorbed or if they do enter the system, they fail absolutely to re-establish the proper ratio of metabolic waste and repair. It is now universally conceded by authorities that the first requisite in the treatment of this class of cases, is to foster the patient's nutritive functions so that food will become assimilated and thus restore wasted tissue and impaired vital forces. The stomach is the organ of prime importance and its normal functional activity must be re-established by remedies which have a direct tonic alterative and stimulant influence upon its enfeebled, inactive mucous membrane. Stomachics—gentian, taraxacum, phosphoric acid, etc.—are the agents of most service. When, however, these stomachics are combined in a certain manner with a remedy which, according to the highest medical authorities, is the best promoter of assimilation, the indications for treatment are completely met. Gray's Glycerine Tonic Comp. combats malnutrition upon the most rational scientific basis, that is, it re-establishes normal nutritive processes by its stimulant and alterative influence upon the digestive organs and also furnishes the wherewithal—glycerine—to cause the assimilation of food and medicines. It gives nature the needed chance to resume its normal work of repairing exhausted vitality and wasted tissues. While primarily a stomachic Gray's Glycerine Tonic Comp. is of greatest value in all conditions of systemic depression or exhaustion occurring either independently or as a consequence of severe organic diseases such as tuberculosis, Bright's disease, etc. It antagonizes depression by propping the natural functions of the body, by engendering appetite and ensuring the absorption and assimilation of food—nature's method of repairing waste.

"This is the bill from your oculist," said the collector to Mr. Grimly.

"Just take it back to him and tell him that I can't read it with those glasses he sold me."—*N. A. Medical Review*.

"This thermometer," said Rivers, looking at a cheap one that was indicating a temperature of something like 40 degrees below zero, "is like a snide medical college. Its degrees are bogus."

Send us the names of two or three physicians to whom we may send sample copies; if you are pleased with the NORTH CAROLINA MEDICAL JOURNAL, drop them a card in our favor.

The Journal of Tuberculosis, a quarterly, published by A. H. McQuilkin at Asheville, N. C., has made its appearance. Karl Von Ruck is the editor of the new venture. It "is a beginning toward what is hoped to be the gradual establishment of a representative publication of American endeavor and progress in dealing with the prevention and cure of tuberculosis," says their salutatory.

NORTH CAROLINA MEDICAL JOURNAL

A Semi-Monthly Journal of Medicine and Surgery.

Vol. XLIII.

CHARLOTTE, JUNE 5, 1899.

No. 11

Original Communications.

President's Address, Annual Meeting, North Carolina Medical Society, Asheville, N. C., May 30, June 2, '99.

Gentlemen of the Medical Society of North Carolina :

I congratulate you upon this your third meeting in this delightful city of the mountains where there is so much to charm the eye and elevate the mind. In this inspiring clime your faculties will doubtless appear at their very best. Since the abandonment on the part of your presiding officers of the old time custom of delivering an address upon some Medical subject, my immediate predecessors in office have adopted a course of discussing questions of passing interest or of importance for the better government of your body. I can see no reason why I should not follow this well beaten track. Much ground has been gone over, and in some instances we have found it expedient to retrace our steps. I hope now that we have reached a position sufficiently high to almost adopt the motto of "Nulla vestigia retrorsum." I heartily congratulate you upon the most distinctive and by far real advancement you have had in many years. It is a complete attainment of the wishes and purposes of your most advanced thinkers for years. Many eloquent pleas have been made for a higher standard of medical education in this State. A number of plans to reach this end have been discussed and proposed by your former Presidents. To their constant repetition of, and urging this question we owe its happy solution at last. "The Gordian Knot" has been severed at one stroke by Legislative enactment. The passing of the act to require applicants for license to practice medicine in this State to exhibit a diploma from some medical college having clinical facilities, and a minimum curriculum for three full years of study is a wise one, and I feel sure will meet with your unqualified endorsement. Unstinted praise is due to the efforts and wisdom of your committee on medical legislation, and particularly to its chairman in securing the passage of this law. It was a fortunate circumstance that this society had a strong representation in the Legislature. It is a source of gratification that in recent years every legislature contains some of your foremost members who always guard your interest with

watchful care. This law should mark a new era in the history of your progress. From this time forward the records of the Board of the Medical Examiners will show a greatly decreased percentage in its rejections and re-examinations. The duties of the Examining Board, instead of being as heretofore trying and burdensome in the extreme, will be light and pleasant.

The probability of any applicant for license being rejected as many as five or six times is hardly to be considered. So that all future Boards are to be felicitated upon the passage of this measure. All this has been accomplished by the sentiment of united profession. At the first Inter-State conference of the Examining Board held in Washington two years since, Dr. Rauch, President of the Illinois, severely criticized the medical law of North Carolina, in that it admitted to examination all classes of applicants without regard for educational qualifications. The lamented and beloved Dr. Thos. S. Wood joined with me in defence of our law, while we were painfully aware of its defects. To such constant and zealous workers as Dr. Wood do we owe the present comparative efficiency of our medical law, after which in the main other States have been modelled. You have been the pioneers of medical legislation in this country; and if you cherish this spirit of progress, as no doubt you will, you will always maintain a position with the foremost medical societies of this country. From your constant education of the people, you have at least secured their moral support, and they are looking to you today to devise methods to stay or prevent the march of disease. I can very well remember, and so can many of you, when it was thought by many of the laity that the Medical Society was only organized to maintain a standard of high charges for services, and expressed great surprise when told that no such thing had ever been discussed in a meeting. Now, whenever there is a Medical Convention, the newspapers are eagerly read to learn what the doctors are doing to prevent or cure disease. We are often asked after a return from our conventions, after the usual inquiries as to the personnel of the new officers, if anything has been found out to cure cancer or consumption; they read and ask about germs, too.

But a few weeks since a distinguished United States Senator gravely informed me that pneumonia was, beyond controversy, caused by germs, and that turpentine would certainly kill the germs and cure pneumonia. I promptly excused him for suggesting turpentine on the ground of State pride and loyalty to a North Carolina product. This is in strong contrast to the preacher, who a few days after, asked if I believed vaccination would prevent small pox. It is probable that he had been reading the "London Anti-Vaccination Reports."

The utility of the Board of Health is recognized by the people of the State. The recent bi-ennial report is a credit to its officers, and compares favorably with the reports of any other State.

No water company can now set itself up in business in any town in this State without proper consultation with, and advice from constant medical authority. It has come to be known that no one can jeopardize the health of

another or of a community without let or hindrance. In any sudden outbreak of disease in the county, town or city, the help of our health officers is at once invoked to abate it. An apt illustration of this is furnished by the recent development of small pox cases in various sections of the State, and if any proofs are needed to show the efficiency of the work of the State Board of Health and its auxiliary county boards, they are ample. The people now look upon these boards of health as matters of necessity, and appeal to their officers for help in the hour of danger. The State Board of Health within the last year has held conferences with the people upon interests pertaining to the public health in different towns in the State. These conferences should be encouraged, and held oftener, as they have proven useful object lessons in helping to educate the people to a knowledge of hygienic laws. They have begotten a confidence on the part of the people in all matters pertaining to the laws of health.

It has taken many years of patient zeal and work to bring about these relations between the people and the profession. Many of those who worked for years to accomplish this end have gone to their last reward, leaving us to continuously build upon the foundation so wisely laid.

I am rejoiced to say, in your membership, there are young men full of ambition, and thoroughly qualified by reason of professional attainments to carry on this work. Let us encourage the ambitions and hopes of these young members, and teach them to know the Society will reward their allegiance by bestowing on them their full share of its honors.

Since our last meeting there have been two events, which, in their nature, as affecting the interest of this Society, demand our attention. I refer to the organization and convention of the Seaboard and Tri-State Medical Societies, the former consisting of a membership of the doctors of the Tide Water Section of Virginia and North Carolina and the latter of members of the Virginia, North and South Carolina Medical Societies. These matters you will have to consider, and decide what your attitude and relations shall be toward these bodies. To a certain extent they are offshoots from this Society. The question that confronts you mainly is, will they, and in what way, affect your interest and growth. This question seems to my mind an easy one to answer. I am fully satisfied that they will seriously injure this Society, and the reasons are plain enough.

They must, in a measure, depend upon the profession for their membership and support. This, our Society, is largely made up of country doctors. The average doctor cannot pull away from his business more than once in any year to attend a Society Meeting, even if he could afford the expense. If he belonged to all of these Societies, he has a divided interest, and the chances are strong that he would adhere the closer to the Society that to the greatest degree furthered his aims or gratified his ambitions.

If there are to be two or three society meetings during the year in North Carolina, it is but natural that any member of either Society, will attend the most convenient. The exigencies of convenience are more often

followed than the dictates of loyalty. The members that attend these new organizations will hardly be induced to attend the State Society. The officers of these new bodies will strive to make their meetings successful. Recent converts are almost the most zealous. I think we will make a grave error, and one not easily remedied, to encourage any organizations that must tend to cause a division of professional interests and lessen that power for professional advancement which this Society has so faithfully and earnestly worked for through long years. A Society formed of material outside of North Carolina can, and will not feel the same pride and interest in professional growth, as one belonging exclusively to the State. This Society has the highest claims upon your loyalty, and cannot afford to further any interests to divide the profession.

Of the making of medical societies there is no end. If this thing goes on, Western North Carolina might unite with East Tennessee to form a Trans-Mountain Medical Society, and the middle section of the State might also organize a Central Medical Association. All of these would leave us with a name only. I most earnestly submit that there is ample room in the State Medical Society for the entire profession of the State. It is only to be regretted there are not officers enough to go around at every meeting.

If any of you have ambitions beyond the State limits, the arms of the A. M. A. are wide open to receive you, and will give you every opportunity to gratify them; and its journal stands ready to print and disseminate your papers. This seems to me encouragement enough to broaden out medically beyond State lines so to speak. So let us enter a solemn resolution here to encourage no others in conflict with its interests. The Tri-State has incorporated in its by-laws a provision that membership in one of the State societies shall be a pre-requisite to membership in that body. It judiciously halts there. If the provision had said that continuous membership it might have been more plausible.

It has been my intention for several years to bring to your attention a matter which I consider worthy of the most careful consideration. The occasion seems now ripe for it, the membership being sufficiently large to properly maintain it. We are constantly reminded of the fact that doctors are not business like in their methods. Their time is taken up with other thoughts than of money getting. They lay up little in this world, but immense treasures in heaven, where they may be of service to them in the hereafter, but can surely be of no earthly use to their wives and children who were dependent upon them for food and raiment, and also for their social position in the community. It is no matter of hearsay, but of direct personal knowledge that in many instances in the house of the dead doctor there was not enough ready cash to give him a decent burial, while there was a small fortune in unpaid and non-collectable accounts on his books. This is a sad commentary, and if any plan can be devised by which the families of our dead members can be benefitted, it is a consummation devoutly to be sought for. If I can succeed in pointing out a way I shall feel that my mission has

not been in vain. Whatever has been accomplished by other medical societies, surely you can do, also. I learn from the *Polyclinic* that the New York physicians Mutual Aid Association was organized thirty years ago. That journal says, "The record of success attained by a movement originating primarily as a philanthropic charity is most remarkable. When first established in 1868 the object was to afford aid to worthy medical men in circumstances of need, and to assist financially the widow, if, as is only too often the case, she should be left destitute. From such a beginning with a membership of less than twenty and an insurance feature rarely exceeding an amount barely sufficient to afford a decent burial, an association has developed numbering 1,450 physicians, and paying a fixed sum of \$1,000 insurance, within a maximum period of five days after death, the cost of such insurance being less than \$18 per thousand. This record embodies a suggestive lesson to other communities. A thousand dollars in cash is a very desirable heritage, especially in country communities. There is no good reason why every State society in the Union could not either alone or in conjunction with neighboring States organize and maintain successfully such an institution.

Almost as long as I can remember anything medical, my grand "Old Master," Prof. Gross, whose name I always speak with reverence, was trying to introduce this feature in the Philadelphia Medical Society. The members of the Southern Express Co., and Brotherhood of Locomotive Engineers have had this feature in successful operation for years. Why should we not have? I hope you can formulate and adopt a plan to carry out these suggestions.

Last year at our Convention there was some discussion as to the propriety of establishing reciprocal relation between the North Carolina and Virginia examining boards. No definite conclusion was reached as to any method to obtain this end. For many reasons I have long thought there should be an interchange of licenses between these boards. I now propose a committee of conference between the boards and let this committee settle upon a modified plan of examination for licentiates of one board applying to the other. North Carolina board has discretionary authority as to the method and scope of examination; and it is probable that the Virginia board is empowered with some latitude.

There are quite a number of our members, who in recent years, by reason of their appointments have become interested in railway surgery. This branch of surgery seems now as distinctive as any other, and certain journals devote to it a considerable portion of their space. I would suggest for your consideration the creation of a new section to be styled, "The Section on Railway Surgery." The chairman of such a section can introduce many matters of interest in surgery as well as in medical jurisprudence, I would also recommend the establishment of a section in Paediatrics. These matters are in keeping with the trend of medical thought and I believe deserve your consideration. I shall trust, gentlemen to your kind patience to help me perform the duties of your presiding officer.

The Practice of Medicine.

ANNUAL ORATION, BY DR. H. S. LOTT, Salem, N. C.

North Carolina Medical Society Meeting, Asheville, N. C., May 30th, June 2nd, 1899.

GENTLEMEN of the North Carolina Medical Society, I thank you for this honor, the pleasure of it was only equaled by the surprise.

Ladies and gentlemen, citizens and guests of Asheville, I thank you for your presence, and for the privilege of standing before you, and trust that you may be in some measure repaid for the coming.

I fear to attempt to offer you anything new, lest, like the clown in the circus, I get kicked out, (I tried that down at Charlotte); I cannot offer you anything original, for there's nothing original in me, except "original sin," but the practice of medicine like the story of love, is ever new, ever near to our hearts, and of equal interest to both profession and laity.

The work is begun while attending lectures, for as the adult is but the grown-up child, so the practitioner of medicine is but the grown-up student. The college days are the formative days; all is new, and strange, and wonderful; and as the infant brain gradually awakens to the realities and the magnitude of life, and of living, so the student of medicine, as he begins to comprehend the elementary and fundamental teachings of anatomy, physiology and chemistry, the study that forms the base of, as it points the way to, the complete structure in process of erection, he awakens also to the magnitude of his task, and lifting his eyes to the future, can see on its misty horizon the first, faint rays of the dawn of a life of usefulness and of science.

The life of the student of medicine is, I take it, much like the life of the student in other branches of education; he may work much, or shirk much, as the trend of his mind goes; and yet while the personality of the genus student may be the same, in the studies there is a difference. It is not cold blooded theoretical deductions, figured out on blackboards, which constitute the day's work and the night's study of the student of medicine, but nature's masterpiece, the human organism, the wonder of which, never ceases and is never fathomed, from its beginning, in infinitesimal protoplasmic elements, to its completion in the anatomically perfect human being; endowed with life, and intellect, and soul. During each day of his work the student of medicine, if he possess the qualities essential to the successful practitioner, awakens more fully to a realization of the fact that it is vital elements, flesh and bone, and blood and nerves with which his life-work has to deal. The lecture room is no longer tedious, but each hour, and each lecture brings fresh food for thought, and new problems, relative to health and disease, for individual study and solution.

The chemical laboratory, which at first bewilders with its multiplicity of uncouth implements, becomes the vantage ground on which invisible elements meet, to be tuned and fashioned by human skill into intelligible shape, and applied to the comfort and well being of human lives.

The dissecting hall, with its ghastly array of gaunt cadavers, entered at first with dread akin to loathing, looses its horror, which has followed us even in our dreams, and becomes possessed of a fascination which can be no more resisted than defined. There is no death there, and though at work among the ashes, each ember is fanned into life by imagination's healthful glow, and in seeking the source, and tracing the course, of muscle, artery and nerve; and in the minute dissection of vital organs, the wonder is that the vital spark is gone, and our subject no longer endowed with the power to think, and feel, and suffer.

The clinic is the student's rest time; when under the wise and kindly guidance of the teacher, the tension of theoretical study is relaxed, and he comes in touch with the patient, to "try his wings" both at fathoming human ills, and reducing the science of medicine to the art of healing.

Thus the life of the student of medicine, while full of work, is also full of pleasure, that pleasure afforded by the earnest pursuance of an accepted life work; and if the mettle of the man rings true, the day on which he receives his diploma, will find him well equipped to enter the ranks of his profession.

The ranks are always full, but they are likewise always ready to welcome the beginner, and extend to him the right hand of good-fellowship; and I believe that it is best for the recent graduate to go to work in the general practice, at least until he has developed his tendencies. I remember the time when I was trying to decide between going to work, and going to seek further instruction, (I had just about enough money to buy a horse, that is a small horse,) I asked the advice of my much beloved teacher, Dr. Joseph A. Eve, and after having discussed the various phases of the question, his opinion was given in these words, "Go to work and study, going to Europe has made more doctors fools, than it has ever made fools doctors." The remark, strengthened by the purity of the man who made it, impressed me much; therein lay a distinction between substance and shadow. In the practice at the bedside, and furthermore at the bedside of the patient who has applied to us for help, and for whom we feel morally responsible, the best clinical teaching is obtained. When we get a diploma we are just fitted to study intelligently. The man who feels that when he has graduated his need for study has passed, had better turn to the plow, or the wood saw, or indeed any other honest calling; 'twere better far, both for his patient, his profession and himself.

In selecting a location, he is a very fortunate man who finds a place where he will be content to begin and finish his life work. The man who is restless, and impatient for quick preferment in medicine or surgery, and moves from place to place to get it, most often defeats his own aim, and lessens his chances of eventual success. The farmer who plows the ground, and runs the furrow in one field, and leaving it, drops the grain in another, reaps a short harvest. Like Rome, professional character and reputation are not built in a day; but they come, with steps as sure as they are lagging, to the

man who is worthy of the reward. And furthermore they come hand in hand, and are both essential factors to success. Professional reputation may be gained through native skill and mental talent, professional character is only gained by purity of life and motive. Reputation is the binding, character is the book ; reputation may bring the patients, character holds them.

The first years, the waiting time, constitute the most trying period of a professional career. They are filled with trials, and temptations, and disappointments. The men on whom fortune smiles early bringing to them a living practice, without the struggle, through either the descent of a father's mantle to their shoulders, family influence, or other of her fickle freaks, are among the favored few. To the large majority it comes through years of patient work and patient waiting.

In starting out in practice the chafing against the bit is hard to overcome. To sit quietly in the office waiting for calls, with very few dollars in the pocket, and expense going on in spite ; to see the busy doctors on their rounds, doing the work, while we sit idle ; is a trial well worth living through : and if bravely borne, yields fruit well worth the waiting. The time is not wasted if properly spent, and the discipline is just what we need. Self-possession, faith in his calling, and faith in his own resources, are most essential to the practitioner of medicine. The man who possesses them has ample opportunities for their cultivation during this period, and will be prepared to meet successfully the first emergency that arises. The man who possesses them not, will be found wanting in the waiting period, and wanting in the work.

Temptations come from every side, and are not confined to those which come through a native fondness for society and its dissipations ; for while these are alluring, and may lead astray, they are most often refining and elevating. The true physician is the doctor every where and every when, always ready with brain and heart and hand ; nor does his calling debar him from social recreation.

The greatest temptation from that source, and the one, if yielded to, most damning and destructive to the physician's moral character and professional honor, seeks him in the quiet of his office : with gloved hand and gold-lined palm, and pleading tear-stained eyes mayhap ; "just a little medicine Doctor ! and a little 'treatment,' and please remember that your fee is no consideration" Will he yield, and bear the scar of professional dishonor throughout the balance of his life ? The need is urgent, maybe, office rent is due, and the money is at hand just for the reaching ; and it is so simple, and really seems to be an act of humanity. Ah yes ! I know the temptation : but if he is a true man, and a true physician, with the honor of his profession as dear to him as his own, he will say no ! and "the fee" will, indeed, be no consideration.

Such, and lesser ones, constitute the temptations without. Within the pale of the profession there are many, living because countenanced, and

equally ruinous to the physician: if not to his honor to his dignity, and to the scientific pursuance of the practice of his art.

The cry of the medicine vender is not confined to the streets; he enters the physician's office with much elegance and suavity; appareled in the latest style, both in person and in speech; and at all ages, from the beardless recruit, who has just shed his pinafores, to the dignified veteran, who had "such an extensive practice" that he must needs leave it, forsooth! and go to traveling in the interest of a "pharmaceutical establishment." And—"my dear doctor, we make the best, the very best, the products of no other house can compare with those we offer you. We visit the physicians only, and introduce our elegant preparations strictly on their merits, and only through the medical profession. And this, our special and latest product, (full formula on the label,) is working wonders. Where it is known the profession simply cannot do without it; and it cures, always. These samples I will leave with you, and to more you are welcome just for the asking. When prescribing doctor, there is so much fraud, kindly specify our goods, and the results are certain." The recitation is well taught, and beautifully rendered, most pathetic in fact. And on leaving, "your full address doctor, Ah! thank you, this will bring you, each month, our publication, with exhaustive reports, from the most prominent men, on the successful use of our preparations." "And remember please, that we will gladly furnish you with literature and samples at any time." And they are furnished, and their pamphlets form the text book, and their nostrums the medicinal agents of numbers of practitioners. It is so much easier to let some one else do some one's thinking; and to use a remedy that is known to be the right one, for it says so on the label. And then they are so safe too, nicely put up in little boxes; and the little pamphlet tells you just when to give No. 1, and just when to give No. 2, and all we have to do is to look at the numbers, never mind about the patient, the little pamphlet says that hundreds and hundreds of cases have been treated by them, with never the loss of one.

Now, in order to find a very large number of the authors of these valuable reports, you would have to conduct your search with a lantern in the daytime. And the remedies lauded, most often under mysterious and high sounding names, are simply standard drugs, that are used by all intelligent physicians each day in their practice. Let the pharmacist devote his energies to the securing of pure and unadulterated drugs, and not assume the office of clinician and teacher of therapeutics. The instrument maker to the making of good instruments, and leave their use, and the "post-operative sequelæ" to the surgeon.

Medical literature offers a maze through which the young practitioner passes in bewilderment; and the only wonder is, that he does not stray further and more often. Just as untrammelled freedom of the press publishes crime and immorality, and sows broadcast their seed in brains and hearts found fertile for the growing; so do unrepressed and mongrel medical journals teach and foster unsound principles and practice of medicine. The ideal,

medical journal, as the ideal physician, should be free from advertisements, and free, also, from solicitations for patronage.

The want of today is not for literature on subjects medical and surgical, of that there is an abundance; but for the power to discriminate between good and bad, the ring of the false, and the ring of the true. Like all human effort, a large mass of it sinks into restful oblivion. Just here and there, untarnished and untattered by time's progress, stand out in bold relief the work and thoughts of men endowed by nature with the power to read her lines correctly, and follow close their teaching. The best literature that we have today, most sound in pathology, accurate in diagnosis and helpful in treatment, is found in the works of the older writers.

Men with their working time behind them, and a goodly number of well rounded and well ripened years of experience and observation from which to draw.

Systems of medicine, compiled from many sources and many authors, and shaped into a number of immense volumes, make quite a formidable array on the shelves of a bookcase, and are quite profitable, no doubt, to the compiler and the publisher; but I question much their value to either student or patient.

Such works, together with most enticing terms of purchase, are presented to the physicians throughout the country by the well tutored representatives of lay publishing houses. Just think of it! Come all the way down from the metropolis, bearing all the expense and distress of travel, for no profit—mark you—but solely to offer to benighted doctors the “very latest work” by some embryonic professor, that their house is “pushing.” Ask one of these gentlemen for a standard work, by a master in medicine or surgery, and his face is a study in its blending of sympathy and pity; “my dear doctor! we don't carry that, it is ‘out of date,’ the works that I offer you are the latest. And the engraving doctor, see the number of fine engravings.”

Now the surgical picture book, while having a sphere of usefulness, portrays rather the financial resources of a wealthy corporation, than the native skill, wisdom, and conscience, the three essentials, of the surgeon. These are best portrayed either through personal contact, or in close study of the volumes which set forth the spirit of the man, in the writings of the life work.

However trying it may be to the physician's mental and moral fiber, the waiting time passes and the calls begin to come. The first call marks a crisis which is ever remembered. It is the culmination of hope deferred, the beginning of the end. It may be to the mansion, but the chances are very great that it will be to the humble cabin, and in either case the issue is of vital import.

With the care and precision which mark the well trained student, and guided by the lights of today which give a knowledge and understanding of obscure pathological conditions, the patient is examined and a diagnosis made of appendicitis.

The trouble has become quite the fashion, and 'tis rather good fortune to have been called to a case, if it can be brought to a happy termination. The patient is suffering, the family anxious, and the skill, wisdom and ability in general of the young attendant much shadowed by doubt. What course of treatment is it best to pursue? The teaching and literature of today, which have been studied so well, present a mottled and conflicting mass, seemingly at war with itself, and failing now to guide straight and true.

At one elbow stands Prof. Salts, with a string of extras to his name as long as your arm, and shaped into a nice little pyramid underneath, who in his latest writing, says that appendicitis is not a surgical disease at all; but is due to a *germ* which makes its home in this little intestinal prolongation and its immediate neighborhood; and if the doings and feeding of the possessor of its habitat incur its displeasure by deranging its medium of existence, much trouble ensues, and the culprit is in danger of capital punishment; which, however, may always be averted by medicinal treatment, tending to expel this ill-conditioned and ill-tempered inhabitant, and create a proper medium of existence for its successor. Surgical interference is practically criminal, and never indicated. And then a long "series" of cases are cited in which the diagnosis was sure, all were treated with salts and calomel, and all got well.

At the other elbow stands Prof. Lancet, with an equal number of attachments, who says that all cases of appendicitis are surgical cases; delay is dangerous, aye even criminal, and should be subjected to operative interference early. The exciting cause, in most cases, is a foreign body, having been introduced either by way of the stomach, or formed within the gut as an enterolith, and its removal, together with the inflamed and often sloughing appendix through an abdominal incision, the only safe or rational procedure. Why, quite recently there appeared in a medical journal, an elaborate article, prepared no doubt, by a member of the firm of Lancet, Duck Pants & Co., strongly urging the removal of the appendix vermiformis in early infancy; and recommending to its securance the establishment of a law like that enforcing vaccination.

Now in the face of such conflicting testimony, from presumably authoritative sources, the position of the man who has not years of experience and observation from which to draw, may be much embarrassed. That co-workers in the field are so widely at variance is most unfortunate. The fundamental laws underlying and governing medical and surgical science, are as fixed as were those of the Medes and Persians, cleaving close to nature's lines. Not wasting precious time in vague theories but striving to aid nature's efforts at throwing off disease, while they also strive to solve her mysteries. 'Tis the expounders of the law who vacillate, and not the law. That "doctors differ" is a much favored saying among the people, and often reflects discredit upon the science of medicine, when the real fault lies in the want of equal powers of observation, and equal training of its representatives.

Finding himself thus at sea, between the two extremes of authoritative opinion, which keep each shore in restless tumult through the splash of their discussion ; the man of resource, sustained by native skill and native wisdom, drops into the strong, deep middle current, which traces its source to the masters in medicine and surgery, and pursues its way from century to century, unswerving and unchanging, and bearing on its broad and mighty bosom the fixed and faithful laws which contribute to the prolonging of human life, and the relief of human suffering.

Thus guided the man of doubt becomes the man of action. The first care is for the patient, whose vitality and environments are taken into account, and the course of treatment advised which promises best. Each case is a law unto itself, and no fixed rules can be established or followed.

A simple catarrhal appendicitis, or as correctly speaking, the perityphlitis of Gross, involving the appendicular region, is often tided over by rest, salines and proper diet without the need for alarm. Or, if on the other hand, the case presents the type so perfectly pictured by Dr. Hunter McGuire, with a probable foreign body, the formation of pus abscess, with a likelihood of perforation ; then to open the abdomen nearest the seat of inflammation, let out the offending matter and drain the cavity, is beyond question the right course to be pursued ; and,

"Do thy duty, that is best ;
Leave unto thy God the rest."

Such issues, with such problems for solution, will present constantly in the work ; and to think and act promptly is most apt both to save the patient, and hold the confidence of the people.

The case terminates favorably, the patient gets well, and the diagnostic skill and successful treatment of the physician are much talked and lauded by the family and neighbors. Or, wait ! the patient does not get well ; the life line has been crossed, and the case terminates fatally. Now, the skill in diagnosis has been equally great, the course of treatment adopted has been equally correct, and yet the issue is most distressing to all concerned ; and not least so to the physician. He has been guided by his lights, and done his best, and yet the shadow of a failure rests upon him. Each step in diagnosis and in treatment is reviewed, and while found to be abreast of the best teaching of today, and to have just suited that particular case, he questions their wisdom ; and to the disappointment and discouragement are added the pain of feeling that possibly some other course would have been best pursued, and might have saved the patient. Do the people know what the doctor suffers in the loss of a patient ? They are his judge, they make or mar his future. A few will censure his boldness, many will question his skill and ability, but the large and ruling number will weigh the matter justly. Into the balance with reputed zeal and professional ability the character of the man is dropped ; and if sound and pure, the swing is in his favor. Failure, while cruel, is oftentimes a better teacher than success. The doubt of self with its questioning and study, are fertile paths to plains of broader knowledge.

As to adverse criticisms, the doctor gets his share of them. No matter how earnest his work, or how pure his motives : and

“Let any man once show the world that he feels
Afraid of its bark, and 'twill fly at his heels ;
Let him fearlessly face it, 'twill leave him alone ;
But 'twill fawn at his feet if he flings it a bone.”

Thus to pursue and to comprehend the practice of medicine, in all the breadth and fullness of its scope, the physician should be a man of power, mental, moral, and physical.

Mental ability, with conceptions and ready sympathies, fits a man to hold position in the foremost ranks of his profession. The case pictured is but a drop from the mighty ocean. Throughout the working time, like problems, medical and surgical, for individual solution, are coming up each day and hour. In every branch of the work, and the general practitioner must have a knowledge of all, theorists form a large and also a valuable school, in that their searchings and controversies often lead to truth. But theory must be reduced to science, the kernel must be freed from its shell, before it becomes the mighty oak ; and upon the general practitioner, mostly developes this task.

The advances of today, along all lines of our profession, are most wonderful. The microbe hunter, crying germs! germs! and waving aloft as he runs his barber's banner, fresh-dipped from the many-hued solutions, has done a great and lasting work; *he has found the germs, and can only see his find*: but he has taught us to be clean; and if to our minds it is still a question whether the germ is a *cause* or a *result* of its medium of existence, having gained the house-top, we should not despise the ladder which has put us there.

To preach and practice cleanliness belongs equally to all branches of our science, and while through its medium the advances in surgery, and especially in abdominal surgery attract most admiration and wonderment, the field for teaching and guidance to the same end is equally broad in the general practice.

Tuberculosis, Syphilis and Cancer, which in their various manifestations constitute the greatest scourges to humanity, have their origin in filth, either of person or environment; and whether the germ exists before or after the establishment of its medium, the preventive lies in cleanliness.

The same principal underlies the latest and most scientific treatment of all diseases with which we have to cope. In autointoxication, with all that the term implies, we recognize the chief source of danger to the vitality of the patient, and in stimulating the emunctories, and keeping up nutrition we also recognize the best means of ridding the system of the accumulating poisons, and of preserving the vital spark.

It is just here that the serum therapist, heralding his theoretical antidote, comes into clash with the true scientist; the man who does not take to each new path that offers, because it is bright, and easy, and diverting. Nor

will he either, without well knowing the reason, inflict upon an organism laboring under a self-engendered poison, which taxes to its fullest the resisting and eliminating power, an additional one of even greater and more deadly intensity.

The electrician subjects both himself and a most valuable therapeutic agent, to the criticism and ridicule of intelligent surgeons, by reporting a "long series" of cases in which, under the magic influence of the current, huge fibroids have melted like snow 'neath the summer's sun.

Such aberrations, gentlemen, are most innocent in origin, and not intended to misguide; but are simply *prima facie* evidence of a want of equal training, and of equal powers of observation in the authors of their being. And furthermore, they lend much to establish the fact that the true scientist is not the isolated and pedestalled myth that current opinion mostly holds, but a living reality, in and out among the people every day. The man with the eye to see and the wit to grasp nature's processes, bearing in mind the elements essential to life; and possessing the wisdom that tells him when to aid, and when to leave her in her doings.

In his moral character the physician forges the link that binds together the profession and the people. Strip the man of moral strength and moral purity, and though he be possessed of the highest degree of skill and wisdom, the picture has lost its glow, and becomes one from which both people and profession shrink. The duties of the physician are such, and through them he is so intimately associated with the most sacred ties of heart and home, that his personality becomes a household factor. His help and counsel are sought and trusted; and even in times of health, or trifling ills, "what the doctor thinks" is an element of no small moment in deciding questions both of duty and of pleasure.

Throughout prolonged ordeals of trying sickness, when hearts and brains of friends and relatives are racked with pain and apprehension, the family physician becomes the stay and guide of all. His coming is ever welcome and his presence gives strength and hope.

In daily contact with patients the moral fibre of the physician is stoutly tested. There is a strong tendency on the part of some people, who constitute a fair per cent. of the doctor's clientele, to make a diagnosis of their ailment, and even to formulate a line of treatment for the same, and then apply for professional endorsement. Now, to cater to their demands would be most culpable, while to find and meet their needs, both wisely and kindly, offers a problem which is at times most difficult.

In the ranks of the profession it is not science, but moral purity of life and motive that makes the front invincible. The paths of earnest and faithful workers are often widely divergent, and their deductions widely at variance, but each is striving for the same end, and from each is culled a grain of truth, which dropped into the store house ready garnered, adds to the richness from which all may draw, and also adds a link to the ever-lengthening and ever-strengthening chain of professional love and unity.

In personal contact with fellow physicians, each man has a moral influence. We seldom come in touch with a man from whom we do not learn something, either to cultivate or avoid. To our seniors we look up with admiration akin to reverence. They have what we want, the skill, the wisdom, and—the practice, and it has been my experience to find them ever ready to lend a helping hand, and give the word of counsel and guidance of which we often stand in need. 'Tis not so much the patients that they send us, as the "word in season" dropped here and there in soil rich of their tilling, that lets the mantle gently down to the shoulders of their successor as they relinquish the work, and brings with it the confidence and patronage of the people.

Physical strength and powers of endurance, are to the physician as paint and canvas to the artist's dream. Without them the vision lives in eye and mem'ry only, nor could the world either share, or be bettered by its power and beauty. With them, from tenderest hue to full and glowing color, the canvas portrays the artist's inspiration. 'Tis a life of doing, not of saying; and in the physical man lies the foundation to the superstructure. Strength, as of a man; and gentleness, like unto a woman are attributed peculiarly essential to the physician. Each fibre of nerve and muscle is trained and adopted to its work; ever under control, at command of the brain's supreme direction; and always with strength to spare. With the gentleness of a woman, the new born babe is washed and dressed, and laid in its mother's arms. Or, as the chance may be, with the finest co-ordination and adaptation of muscular movement, the most trying surgical operation is done.

The loss of sleep, (burning the candle at both ends,) the hurried meals, the long hard drives through rain, and mud, and snow, and—the collecting! all tax the doctor's physical strength and powers of endurance to their utmost. There is no hour that he may call his own; all time and skill, all power of brain, and heart and hand, belong to his profession and his patients.

"Therefore though few may praise, or help, or heed us,
Let us work on with head, or heart, or hand,
For that we know the future ages need us,
And we must help our time to take its stand."

And the patients love "The Doctor," and when the task is done, and the life is spent, from each home comes the sorrowing sigh:

"But Oh for the touch of a vanished hand
And the sound of a voice that is still."

MESSRS. FINGER & ANTHONY, Salisbury, N. C. DEAR SIRs:—Such plating of surgical instruments as you have done for me has been entirely satisfactory, and I find it a convenience to have this work done at home and not to send it North.

Asheville, N. C.

C. L. MINOR, M. D.

Antiseptic Midwifery.

By W. W. MCKENZIE, Salisbury, N. C.

Read before the North Carolina Medical Society, Asheville, N. C., May 30, June 2, 1899.

IT has long since been ascertained that puerperal septicaemia is due to a poison which enters the system through the genital tract as such, or is produced there by a substance coming in from without.

It is also a settled fact that in almost, if not in all cases, by the local use of certain measures and drugs we can prevent puerperal septicaemia. It can furthermore be said that the producers of this poison are certain microscopical fungi, which have been found on the wounds of the genital canal, in the blood circulating in the veins of the living patient and after death, in almost all the great cavities, exudations, &c. The most dangerous of these, it is said by those who should know, are the round micrococci in chain-like groupes, but beside them are found single and double round micrococci and the common rod-shaped bacteria of putrefaction. Chains of micrococci similar to those of puerperal septicaemia are found in erysipelas, scarlet fever, diphtheria and pyemia, and so far it has not been possible to differentiate them in these clinically different diseases.

The poison causing puerperal septicaemia may be derived from different sources,—such as patients suffering from the same affection; patients suffering from suppuration or decomposition of tissue; patients suffering from zymotic diseases; and from putrefying substances.

The contagiousness of puerperal infection is universally admitted. The only mooted point is whether it is essential that the microbes be carried from one patient to another on solid objects or whether they may float through the air.

That the source of puerperal infection may be suppuration was pointed out by Semmelweis as early as 1847. Students who had examined a patient with a cancerous ulcer of the uterus caused puerperal fever in and death to fourteen women, and in this country the case of Dr. Rutter, of Philadelphia, who suffered from Ozena and had 45 cases of puerperal septicaemia in his own practice, in one year (1843) is one of the most remarkable instances of this kind. It is easy to understand now how by touching his nose with his fingers, Dr. Rutter, brought staphylococci and streptococci into the vagina or the uterus of his unfortunate patients. A French physician who had delivered eight hundred women without the slightest infection, was seized with suppurative adenitis, for which he wore a drainage tube. Within three weeks he had three cases of puerperal septicaemia. A dentist, Dr. Redley, called attention to diseased teeth in doctors and nurses as a possible source of puerperal infection.

All inflammatory puerperal diseases are due to infection such as cellulitis, metritis and local peritonitis, the proof of which is, that they almost disappear and entirely change character, when the antiseptic occlusion treatment

is used. If no poison from without found its way into the body of the pregnant or puerperal women, few of them would be sick after delivery. In the vast majority of cases the infection takes place by absorption through the wounds of the genital canal, but not exclusively. In most cases the poison is brought into direct contact with the genitals by the hands of the doctors midwives or nurses; by instruments, sponges, rags, cotton, oakum or other substances; but it can quite as well be suspended in the air of the rooms. Dupaul reported the case of a pupil midwife, who, while washing the genitals of a patient affected with puerperal infection, felt an unpleasant sensation, was taken sick in the evening, and died on the third day with all the symptoms of the most characteristic puerperal fever. The diagnosis of puerperal fever was confirmed by the autopsy; she was found also to be a virgin and not menstruating. The natural inference is that she inhaled through the lungs the poison that caused her death. Such a case may be unique, but it ought, nevertheless, to make us a little reserved in our expression about the way the poison of the puerperal septicaemia enters the system.

The infection will of course be most likely to take place during the manipulation of delivery, but it may likewise occur before and after. Thus we sometimes, although rarely, find fever before delivery, and, on the other hand, septicaemia may develop at a period, when, as a rule all danger is passed.

The mortality from puerperal fever before the use of antiseptics in midwifery, was simply enormous—rate being about ten per cent., but now since the adoption of proper antiseptic measures it is only $\frac{1}{2}$ of 1 per cent. Before the introduction of antiseptic measures puerperal septicaemia used to reign in so called epidemics. With our present knowledge we can, as Fritsch aptly puts it, "as little speak of an epidemic of puerperal fever as of an epidemic of gun-shot wounds the day after a battle."

I will be brief in indicating the historical developments of antiseptic midwifery. The first who understood the septic nature of puerperal fever, and instituted an antiseptic prophylaxis (by means of chloride) was Semmelweis, of Vienna, in 1847. Still our present highly developed antisepsis is not derived in a direct line from him. It was first when Lister, building on the researches of Pasteur, has created antiseptic surgery (1866) that Stadfeld, (1870) tried to adapt his treatment with carbolic acid to midwifery, and he was soon followed by Bischoff, of Basel, and Fritsch, of Halle. From that time the use of carbolic acid in obstetric practice spread rapidly over Europe and America. But another period was inaugurated when Tarnier introduced bichloride of mercury, which he recommended in a paper read before the International Medical Congress in London in 1881, and this treatment received new impulse thro' the experiment of Koch, of Berlin, and the introduction of it into surgery by Schede, of Hamburg.

The bichloride of mercury, as a preventive and curative agent, was then introduced (1883) in many lying in hospitals. In America it was first intro-

duced by Garriges in the New York Maternity Hospital on the first day of October, 1883.

This is the chief drug used by obstetricians, but some still prefer carbolic acid, while others use nothing. The latter consequently are continually furnishing the undertakers with plenty of material. I know of a practitioner who during the last six months lost five cases; two the same day, from puerperal fever. This practitioner pretended to use antiseptics, but he didn't use them right. There is a right way and a very wrong way to do all things. In this case the wrong way was the easiest, and seems to have been used to perfection.

I know of still another physician who has lost four or five cases in succession. I am glad to say that neither of the physicians live in my town.

Insurance reports show that of all deaths in women between the ages of nineteen and twenty-nine more than eighteen per cent., and between twenty-nine and thirty-nine, thirteen per cent. are due to puerperal causes. From sixty-five to seventy, five per cent. are attributable to sepsis. It is fair to assume that these statistics have to do almost entirely with a class who are delivered outside of hospitals. Thousands of invalid mothers to-day owe their impaired health to the milder grade of sepsis in childbed. Now, are we going to allow this to continue when we can prevent it? Certainly not. There are a number of physicians to-day, who, when you mention antisepsis and asepsis, turn their noses up with disgust and say, "Nonsense, there is nothing in it." But I am glad to be able to say that the majority of physicians do use antiseptic measures, consequently we rarely hear of a case of puerperal septicaemia. Only one of my patients ever suffered with this terrible disease, and she was one of the contrary kind. There was a slight laceration and she would not let me repair it, nor allow the antiseptic douches to be used, so she died very promptly on the ninth day after confinement.

Coming now to the preventive treatment I will confine my remarks to private practice, as we of course cannot do everything as neatly, etc., as they can in hospitals and our patients have to be treated at their homes. But we can use the same antiseptic precaution if not as neatly, as in hospitals. In well-to-do families we should choose a large, airy, sunny room, and as far as possible from the water closet. In the dwellings of the poor you will have to do the best you can. Select the best room in the house and have the best ventilation possible. In my obstetric bag I always have a jar of green soap, bichloride of mercury tablets, carbolic acid, a sterilized apron and Kelly pad (also previously sterilized) nail brush, fountain syringe, forceps, scissors, sutures, needles, ergot and chloroform. Upon arriving at my patient's house I proceed at once to scrub my hands and arms well, having my sleeves rolled up above the elbow and then bathe them in bichloride of mercury. (2004) I have the nurse to do the same. Next I direct the nurse to give her an enema, then have her to bathe all parts liable to be touched during delivery, with bichloride solution. I then give her a vaginal douche whenever patient has leucorrhœa. I make as few examinations as possible, and always before

and after each examination I bathe my hands in a $\frac{1}{2000}$ Sol. bichloride of mercury which I always have in a bowl or basin near me. I have the Kelly pad placed under patient after the nurse has bathed her, as I have before mentioned.

The placenta should be expelled by Crede method when possible, so as to avoid introducing the hand into uterus. When the placenta is retained be careful to thoroughly disinfect hand and arm immediately before attempting to remove it. Be sure to remove every particle of after-birth, since if any remains puerperal septicaemia will develop immediately. Whenever called to a case of labor after attending a case of sepsis such as erysipelas, puerperal fever, etc., besides using the ordinary antiseptic measures you should use the permanganate method. By it the hands, it is claimed, may be rendered practically sterile to culture tests. It is as follows: first the nails are cut short and carefully cleaned; second the hands and forearm are scrubbed for three minutes with soap and water. The brush before using is sterilized by steam and the water, which is as hot as can be borne, is frequently changed. The soap is rinsed off with plain water; third the hands are next immersed into a warm solution of permanganate of potassium and are scrubbed with a sterilized swab. Boiled water should be used for the solution, which should be saturated; fourth, the hands are next held in a warm saturated solution of oxalic acid in boiled water until permanganate stain is entirely removed. Fifth, after rinsing in sterilized water the hands are immersed for two minutes in a 1-500 mercuric chlor. sol. After this method any physician can safely attend labor cases.

After delivery if there is a laceration repair it immediately, using prepared silk, silk worm gut or silver wire, as they are less apt to cause suppuration along the needle tract. Use catgut for buried sutures. Sutures should be removed on eighth or ninth day. After delivery you must again thoroughly disinfect your hands and arms, remove placenta and disinfect again as before, then have soiled parts of body thoroughly cleaned at once with antiseptic solution; her linen if necessary should be changed and all blood stained articles removed from bed. Bathe genitals thoroughly with antiseptic solution, using a piece of sterilized gauze or toweling. After cleansing, the vulva is covered with an antiseptic dressing. They are not employed as occlusion dressing. Their object is rather to promote cleanliness of the external parts, thus limiting the danger of infecting the passage from the proximity of the decomposing discharges. Should catheterization be required after labor, care will obviously be needed to prevent infection of the vaginal wounds and abrasions, but this is not all—Cystitis frequently results from infectious materials being carried into the bladder during catheterization. Pyelitis may result by the extension of the septic process from the vesical mucosa through the ureter.

To prevent this the strictest asepsis must therefore be observed in catheterizing the bladder. Instruments should be boiled in water for five (5) minutes immediately before using, and this is possible even with soft rubber

catheters without material injury to the instrument. Extreme care must be taken to prevent urine from trickling down over the affected parts. After removing catheter disinfect it immediately, bathe the external genitals with 1-4000 bichloride mercury sol. (I use the glass catheter altogether, it has the advantage that it presents a perfectly smooth surface and corner, therefore, a minimum amount of urethral irritation. Boiling the instrument for five (5) minutes immediately before using renders it aseptic.)

During the lying-in period I always direct the nurse to use the vaginal douche 1-4000, twice daily, also to change vulva dressing every 3 or 4 hours, and after removing each dressing bathe the external genitals. All linen must be changed every day.

DISCUSSION.

Dr. Kent.—“I listened with pleasure and interest to the well prepared paper of Dr. McKenzie. I would be rather inclined to criticise Dr. McKenzie adversely, but in truth I find no fault with him, and must say that I heartily approve of everything that Dr. McKenzie has said. I have been practicing midwifery antiseptically I think, ever since I have been practicing medicine, which is quite a number of years, but I do it, I think, in a much simple way than Dr. McKenzie advocates, and I say with pride that so far as I know I have never had a case of puerperal septicemia where I delivered the case. In consequence of the success I have had along that line I am going to give in a few plain words my manner of managing the case so as to avoid puerperal septicemia. When I am called in I wash my hands thoroughly in a simple carbolized solution, not very strong, but strong enough, as I think, to cleanse my hands well. Then I use carbolized vaseline. I have never taken the trouble Dr. McKenzie advocates of having the patient sponged. That might be necessary in some cases, but I have not found it so, and I am inclined to think from my experience that puerperal septicemia is not a very common disease, or I might have had some of it in consequence of my not having been more thorough in my treatment. Oftentimes in the rush of human affairs, even in a small village, you do not have time to do everything that Dr. McKenzie advocates, and then you must do the best you can. After I have delivered my patient, within a few minutes I deliver the placenta. I ordinarily have her sponged then, the bed linen changed at once, and have her washed once or twice a day with a simple carbolized solution. I instruct usually that these washings should be kept up from five to eight days, depending upon the length of the discharge or evidence of any septic matter that might be there. Where I have been called to cases of puerperal septicemia I used much the same treatment, and I have been gratified with the quick falling of the temperature and the rapid improvement of the patient after I began the washing. I believe that the best of all is in cleanliness, absolute cleanliness, abundance of fresh air, and as much sunshine as you can conveniently have.

Dr. McMullin.—I am disposed to agree with Dr. Kent in his management of normal labor. My record probably has been as good as the every

day practitioner, and I have never yet found it necessary to do more than exercise ordinary cleanliness. I would like to have one point brought out, and that is with reference to vaginal douches after labor. My custom has been not to use them, and I would like to hear some expression in reference to their use in ordinary normal labor.

Dr. O'Hagan.—I am opposed to vaginal douches, and it has been established without doubt that the discharges themselves are the best antiseptics we have. The difficulty and annoyance of using vaginal douches does harm to the patient in the way of disturbing her, and I think among the most advanced and enlightened obstetricians the method is not approved. I do not think they are of value, and should condemn them.

Dr. Watson.—I cannot agree with Dr. O'Hagan about the harmfulness of vaginal douches. I think the best time to take precautions is through the vagina in the early stages. I am sure it makes the patient a great deal more comfortable. I have tried both methods, and my patients invariably call for the douches. In regard to the rare occurrence of sepsis following labor, I have not had the same experience Dr. Kent has. I feel it my duty to proceed, as this gentleman in his paper advocated to deal cautiously with every case. In regard to the use of the catheter after labor as an antiseptic protection, I do not think that is necessary. I think that vaginal douches and washing off with bichloride solution after delivery will dispense with the use of the catheter. I am opposed to intrauterine douches unless they are called for especially.

Dr. Royster.—The only point about which Dr. McKenzie has overstepped the bounds is in recommending the use of douches in nonleucorrhea cases. My practice has been not to use douches in normal labor. I believe Dr. Kent has been very lucky. I am sure if I had omitted any link in the chain of my usual precautions I would have had a case of puerperal fever on my hands. I have no record to speak from, because my experience has been too small, but it seems to me we are called upon to be just as careful in our case of midwifery as we are in surgical practice. I think that a man should use a stiff brush and plenty of soap and water and some chemical preparation afterwards. I think if that is done the rest of the conduct of antisepsis in keeping the hands clean will be very easy. I was much interested in an article by Dr. Edgar some time ago on the practical management of normal labor. He quoted statistics from Williams and others to prove that there were no germs existing normally in the lochia. I have seen many articles on the study of practical asepsis for labor, but there are very few which tell the general practitioner what he wants to know in ordinary practice. They talk about sterilized sheets and sterilized gowns and things of that kind, but they do not talk about the sterilized finger. The germs do not exist normally in the vagina. My experience has not been large enough to make any further observations, but I think we all learn that most of the trouble comes from personal contact either from the doctor or the nurse. It is not medicine.

Dr. J. W. Long.—If Dr. Herring had looked for those microbes with a microscope he probably would have found them. I am familiar to some extent with Dr. McKenzie's obstretrical work, and if his method may be dominated ineddlesome midwifery then it gives good results, for I know he attains excellent results. I agree with Dr. Royster that the same precautions should be taken in preparing ones hands for an obstetrical case as in surgical practice. If, as most of us believe, these little microbes or bacteria may be destroyed or gotten rid of by the use of mechanical measures and antiseptic drugs, then it seems to me to be rational, to be good common sense treatment and a common sense method to scrape and wash and use antiseptics until we free our hands and the genitals from bacteria. It has, I think, been clearly shown that the septic germs have their normal habitat in the upper part of the vagina and even in the urethral canal. None are found beyond the osin a normal healthy uterus. I agree, and my practice is, when there is no leucorrhea, there should not be used any vaginal douches before labor. The gist of Dr. McKenzie's paper is that he is striving to attain asepsis, and that he is working to free his hands and the genitals from these germs, and I believe that this is the basis of all good surgery, and I believe we ought to observe an obstetrical case as a surgical case, and treat it after the same general principles.

Asepsis and Antisepsis in Surgery.*

By GOODE CHEATHAM, M. D., Henderson, N. C.

THE practice of asepsis and antisepsis is no longer a subject for argument or controversy in the surgical world. Surgery has made such rapid progress since the introduction of the "Antiseptic Method" of Sir Joseph Lister, that very nearly all opposition to asepsis and antisepsis has disappeared. It has become an integral part of the practice of the majority of surgeons all over the world, yet there are a few surgeons to-day who will operate without any antiseptic precautions whatever, while others use very little, thereby exposing their patients to infections which may prove fatal. Among some of the advances made in surgery, due to asepsis and antisepsis, may be mentioned the abdominal surgery of to-day. No surgeon would hesitate to open the abdominal cavity now, when only a few years ago it was considered almost certain death. The number of successful abdominal operations in cases of gun-shot wounds of the intestines is proof enough to justify the employment of every antiseptic precaution in all operations and wounds, for without it we are sure to have suppuration and, in many instances, septicaemia.

Reports from the last war show that a very small percentage of wounds, of American soldiers proved fatal, this was due to the rigid antiseptic methods employed. Each soldier was provided with an emergency outfit consisting of a piece of sterile gauze, a handkerchief with illustrations and

* Read before the North Carolina State Medical Society, Asheville, N. C., May 30, and June 2, 1899.

stamped instructions for bandaging every part of the body. These immediate antiseptic precautions, with the care of the surgeons in the hospitals, give American surgery a great triumph. Compound fractures have been considered among the most dangerous accidents, but now little more than simple ones, while, in amputations, the mortality rate is almost nothing.

A review of the actual status of the life-saving value of the antiseptic method certainly justifies its use under all circumstances. If the only claim that could be made for the antiseptic method was that it made the patient more comfortable, hastened the healing of wounds, or rendered an operation safer, it immediately becomes the imperative duty of every surgeon to adopt it.

Since the advent of Lister's method with its elaborately prepared dressings, its powerful germicides, and its troublesome apparatus, there has been slow, but sure tendency to simplify these methods. Simplicity, cleanliness and the weaker antiseptic solutions have gained predominance over the above method. The use of powerful germicides upon a wound surface is falling into disuse, and rightly so, for it has been proven that a wound subjected to this undue irritation does not heal as promptly, for this solution destroys the resistance and antiseptic action of the living cells, which will, if not interfered with, render the few germs inactive, which may gain entrance during an operation conducted in accordance with the improved methods of modern surgery. It will also cause undue serous exudation. There is also some danger of poisoning from the use of strong solutions of bi-chloride and carbolic acid, and also from the use of iodoform, but these cases are very rare, in fact too rare to deserve mention. The simple methods of sterilization, which give better results, are due to the practical teachings given us by the abdominal surgeons. Now the surgeon uses, after his first incision, weak bi-chloride solutions, simple boiled water, or boiled normal salt solutions, reserving his strong antiseptic solutions for cleansing sponges, tampons, etc.

Infection from the germs, which enter wounds through the medium of air, is rare, but that it may occur by this means is not in the least impossible. The most important steps to be taken to prevent infection are the careful preparation of the patient, the rendering aseptic the hands of the operator and assistants, and also the thorough sterilization of instruments, sponges, ligatures and dressings. The most approved methods of asepsis and antiseptics of to-day should be familiar to every surgeon. These methods can be found discussed in detail in any standard work on surgery.


Recently, for disinfection of instruments and dressings, Formaldehyde gas has become very popular with some of the profession.

The following are some of the experiments with Formaldehyde gas, as a means of disinfecting instruments and dressings. The apparatus used contains about six cubic feet. Using four pastilles of paraform, it was possible to render the piece of gauze that had been dipped in a pure culture of anthrax, sterile in ten minutes, but if a piece of gauze was wrapped in seven or

eight layers of gauze and this bundle enveloped in three thicknesses of foolscap paper, twenty minutes were required for sterilization. The only disadvantage noted was that on opening the box the escaping gas caused considerable irritation of the eyes of those in the room. With regard to the effect on instruments, it was found that neither the gas nor the liquid formaline had any influence whatever upon the sharpness of the instruments. For the disinfection of small instruments such as those used by ophthalmologists, otologists, laryngologists and dentists, it is by far the most convenient and speedy method. This method, probably better than any other for the work designed, carries out the principles of disinfection laid down by Koch, viz: "the absolutely certain destruction of all pathogenic organisms, in the shortest possible time, at the least expense and with a minimum injury to the object of disinfection." For practical purposes ten or fifteen minutes is a short enough time for the sterilization of instruments, and this can be done with five or three grains paraform.

Chronic Gastro-Intestinal Catarrh.*

By WM. J. MCANALLY, M. D., High Point, N. C.

 CHRONIC gastro-intestinal catarrh, is by no means an infrequent disease. I realize its importance and am conscious of my inability to do justice to such a broad subject in this paper. But if I shall succeed in drawing out discussion then my labor is not in vain. These old dyspeptics of whom I shall speak have suffered a great deal and have been despondent and cross a long time. To relieve them is to win their lasting friendship and make perhaps more than one soul happy. This trouble may arise from a variety of causes, among which are abuses of whiskey and tobacco, irregularity in eating, eating too much and too fast, use of too many cold drinks, poor and improperly cooked food, and of course various troubles in other parts of the body as cancer, cirrhosis of the liver, Bright's, &c. But of these later cases I shall not speak, my remarks shall be confined to those cases in which the cause may be removed. During the three years I have been practicing many interesting cases of chronic gastro-intestinal catarrh have come under my care. In the diagnosis and treatment of these cases no Ewald or other test meals have been given and no chemical or microscopical examination of the stools or stomach contents were made, because I did not have the necessary apparatus. But I arrived at my conclusions as to the cause and kind of trouble in these patients by observing their habits, food they ate, what agreed with them best when they were in more distress, whether the pain was continuous or not, the presence or absence of hunger, &c. What I have to say can perhaps be made more plain by citing cases. Miss J. B., a lady of sixty, who had for a number of years been troubled with her stomach and bowels had when I first saw her been confined to her room four months and could scarcely take any food without intense suffering, and a little over

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her starvation diet would cause so much pain and burning in stomach and bowels, beginning about one half hour after eating, that she was compelled to take morphine.

All this time her bowels were moving from four to eight times a day and contained much mucus often streaked with blood. She was thirsty and would occasionally have some fever. Tongue was large and flabby, red at edges and white in the middle, all kinds of food even water would ferment and cause pain. Diagnosis, anacidity, caused by poor and improperly cooked food and the use of whiskey and tobacco. I believed it was anacidity because she never got hungry and lean meats hurt her just as bad as the farinaceous food, and the fermentation and pain began too soon after eating to be hyperacidity and there was the vomiting of mucous.

I did not think it was cancer or ulcer because the pain was not constant and did not begin immediately after taking food as is the case in cancer and ulcer, but some twenty or thirty minutes thereafter.

TREATMENT—Gave an ounce of epsom salts to start with, stopped all food except Valentines meat juice, milk and lime water every two hours and a cup of hot water every morning, ordered a capsul of bis-sub-nit 12 grs. and silver nitrate one quarter grain, to be taken t. i. d. one hour after food, and every night a capsul containing five grains sulpho carbolate of zinc and opii one half grain, kept up this treatment for one week and she got along very well and began to be hungry. Then put her on 15 drops acid hydrochlor. dil. and 10 drops tr. nux. vom. in water three times a day before eating and allowed eggs and lean meats and light bread with the milk, discontinued the Valentines meat juice, kept up the bismuth and silver twice a day two hours after meals; in about two weeks all the mucus had disappeared from the stools and her bowels moved regular twice a day, she could manage her food without distress, was gaining weight and has been getting along nicely ever since, but has had to continue the H. Cl. This long continued use of the acid has brought no evil results.

She is doing her house work and eats most anything, feels better, looks well and weighs more than she has in five years. I attribute these results to silver nitrate and H. Cl.

Have never gotten good from pepsin in these cases, and begin to believe like Prof. Hemmeter, of Johns Hopkins, that pepsin has absolutely no place in the treatment of these cases. He says it is a very rare thing to find pepsinogen absent from the gastric juice. But there will be no pepsin evolved from the pepsinogen if H. Cl. is absent. All that is needed to get the necessary amount of pepsin is to supply the H. Cl. Really we have very little use for the commercial pepsin at all except when it is desired to digest food outside of the stomach. If H. Cl. is absent there will be scarcely any digestion done in the stomach. Meats cannot be digested at all. A short while after food is taken fermentation will begin in the stomach and even the starches which need no pepsin or acid for their digestion will be ruined and rendered useless.

The organic acids formed by this fermentation will irritate the mucous membrane of the stomach and bowels and produce an unhealthy condition of the entire alimentary canal.

For this condition of affairs we can readily see the rationality of sweeping out the alimentary canal, (and nature had been trying to do this by the

diarrhœa which we find present,) and then give antiseptics to prevent fermentation and silver nitrate to produce a reaction and bring about a healthy condition of the mucous membrane.

Supply the acid and give strychnine to help the motor power of the stomach and patient will improve right along. The vomiting in the case just mentioned was only once or twice a week, had it been worse I should have used Lavage. Anacidity is a disease which may last for years, even a lifetime and in different patients we see every degree of severity, it is more often met with and causes a great deal more trouble than hyperacidity, but some distressing cases of the latter are seen. B. D., male, aged 42, came under my care in January, 1898. Had four years been suffering hyperacidity, he was nearly always hungry and the hunger was accompanied by burning and an annoying sensation in the stomach which was relieved by taking food or water, but would begin again in about an hour after eating and would be worse than when the stomach was empty. He had been compelled to take bicarbonate of soda to stop this pyrosis. Lean meats, eggs and other proteids would prevent the burning being so severe and a big meal of lean roast beef (and by the way he could eat the most of any man I ever saw) would entirely stop the burning for five or six hours, but an ordinary amount would not stop it entirely very long, though he never suffered so very much when he got a reasonable amount at each meal and took his soda. But when he ate a lot of potatoes and beans and only a little meat and took no soda after eating the burning would be so intense that he could hardly stand it, and the motor power of his stomach would get so strong from the stimulus the extra amount of acid furnished that the food would be regurgitated and nearly the entire meal would be spit up within an hour and a half. I gave him calcined magnesia twenty grains after each meal, advised him to eat largely of lean meats and eggs and to increase the magnesia when eating vegetables. Magnesia is much better than soda in these cases as there is no gas formed by the action of the gastric juice upon it. He has been getting along beautifully and has had no more diarrhœa and no tenderness over his bowels. The meat uses up the acids while it is being digested, and Prof. Memminger says this kind of treatment will, after awhile stop the formation of so much acid in the stomach and he has fully demonstrated the fallacy of the old theory that an alkali in the stomach will increase the amount of acid secreted. Thus we may relieve many a dyspeptic and even the old alcoholic stomach may be repaired and made to do good service again, but where there has been much destruction of mucous membrane that patient's digestion, like the one-legged man's walk, will never be perfect again, but let us give him the crutch.

Hon. Theodore Roosevelt concludes his serial, "The Rough Riders," in the June *Scribners*, giving an account of "The Return Home" of that famous troop of cavalry. The magazine for June also contains an entertaining story of "The War With the Insurgents at Manila." But there is more than war in this number. For instance, those who enjoy the artistic and the peaceful will find something to their tastes in "The Modern Group of Scandinavian Painters" and "The Education of the Artist." Quiller-Couch's clever story "The Ship of Stars" is now running in this periodical.

SANMETTO AND IMITATIONS.—I gave Sanmetto a trial in a case of gonorrheal cystitis where all the usual remedies and Sanmetto imitations had failed, and it gave the desired result. Will continue to use it.

Hudson, Iowa.

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Editorial.

THE ASHEVILLE MEETING.

The State Medical Society held its forty-sixth annual meeting in Asheville at the Battery Park Hotel. The attendance was good, some 286 members being present, and the character of the papers read and the discussions which followed were fully up to the average. The brothers in Asheville performed the duties of host with such assiduity that it was with difficulty the social features of the occasion were kept subordinate to the professional, and the visiting doctors one and all grow enthusiastic when speaking of their entertainment. The citizens of Asheville, Dr. Fletcher and his committee on arrangements are certainly deserving of the gratitude of the Society for their admirable management of the meeting.

The president's address was an able one and the practical suggestions made were all worthy of the serious consideration of the Society. We are with Dr. Picot in his desire that no other medical organization in the State should be encouraged to the hurt of our own State society, which ought always to remain first in the hearts of the physicians of North Carolina, and we believe it will.

The meeting lasted four days, a length of time regarded by many as too long, but there is this to be said of a long session, that it enables members to attend some part of the time, who in the case of a two days meeting for instance might find it impossible to be present on either. Another reason for a long session is found in the social features of such occasions. Many of our physicians rarely leave their homes during the year except to attend the Society, they are certainly entitled to four days of social and professional intercourse.

Some disappointment was expressed that the committee on the Pittman prize did not see fit to bestow the prize upon any of the papers coming before them. We should like to see it given to the best paper coming before the committee. This would have the effect of stimulating the young men of the Society to compete for it, with the certainty that the prize would be awarded.

It is satisfactory to know that fifty-three new members were added to the Society at Asheville—one-half of this number being newly licensed practitioners.

We congratulate the Society upon the selection of officers for the ensuing year; they are men having the good of the profession at heart and will leave no effort untried to render the next meeting at Tarboro a most successful one.

Meeting of the North Carolina State Medical Society.

FIRST DAY—TUESDAY, MAY 30TH.

The Forty-Sixth annual session of the Medical Society of North Carolina was called to order on May 30th, in the Battery Park Hotel, Asheville, N. C., by Dr. H. M. Fletcher, Chairman of the Committee of Arrangements, The President, Dr. L. J. Picot, in the chair. Invocation was made by Rev. Dr. Byrd, of the Central Methodist Church. The Hon. Locke Craig then delivered an address of welcome to the Society in his usual happy style, which was listened to with great interest. Dr. Benj. K. Hays, of Oxford, N. C., made the response in a similar pleasant strain.

President's Address.—This was delivered by Dr. L. J. Picot, who congratulated the Society upon its present prosperous condition, and called attention to the fact that the State Society was sufficiently commodious to hold all the medical men of the State, thus rendering the formation of other medical associations superfluous. He also recommended that a benevolent association be formed by the Society for the purpose of insuring the lives of members.

The President appointed the following Committees: On Finance, Drs. A. G. Carr, C. M. Pool and T. S. McMullan. On Credentials, Drs. H. M. Fletcher, H. A. Royster and A. A. Kent.

The Continued Fever of North Carolina.—An excellent paper of this title was read by Dr. Benj. K. Hays, of Oxford, and elicited a very interesting discussion, participated in by Drs. Reagan, Royster, Booth, O'Hagan and Williams.

Pittman Prize.—Dr. Baker announced that Miss Minerva Pittman, the daughter of the late Dr. M. J. Pittman, for many years an honored member of this Society, desired to offer a prize of one hundred dollars in cash to be competed for annually by members of the Society, under such rules as it should see proper to establish. She desired to impose only one condition, viz: that the award should be made for original work or investigation upon

any subject pertaining to medicine leaving all other conditions to the pleasure of the Society. Miss Pittman hoped the Society would see fit to accept this offer so that the award might be made at this meeting. It was moved and carried that the offer be accepted and that a committee of three be appointed to have this matter in charge. Dr. Julian M. Baker, Dr. Geo. W. Long and Dr. J. P. Monroe were appointed on the committee.

The Committee on Credentials reported and recommended for membership in the Society the following gentlemen:

Drs. A. S. Pendleton, of Warrenton; S. L. Russell, of Spillman; N. C. Daniel, of Adoniram; C. A. Anderson, of Burlington; J. A. Morris, of Wilton; Thos. P. Cheeseborough, of Asheville; B. Ray Browning, of Littleton; D. E. Moore, of Sandy Mush; J. E. Smithwick, of Jamesville; R. L. Allen, of Waynesville; Drs. J. B. Matthews, Chas. S. Jordan, Chas. L. Pearson, A. M. Bennett, Earl Grady, H. C. Menzies, Jos. Sawyer, L. B. McBrayer, Jno. M. Osborne, D. E. Seviars and J. T. Seviars. Drs. Chas. Van Berger, J. H. Woodcock, J. C. Gouger, Mary Nelson Denison, Norman C. Hunter, Jno. D. Macray, Chas. L. Scott, W. C. Lauderdale, D. L. Macketham, G. M. Van Poole, J. F. Peavy, Thos. Springfield, J. Warren Achorn, W. E. Miller, Harris R. Moore, A. M. Whistnant, R. Hicks, W. H. Smith, W. O. Nisbet, J. H. Burrell, S. H. Crocker, Wm. Fountain, F. L. Brooks, R. T. Steele, L. H. Love, J. P. Whitehead, S. H. Lyle, W. J. McAnally, T. W. Long, H. M. Hilliard, Jno. McCampbell, Jno. B. Wright, Paul Paquin, S. H. Crooker, Geo. H. Kirby, D. A. Garrison, K. T. Yarborough and T. W. Davis.

"Typhoid fever as met with in Fayetteville and surrounding country," was the subject of a paper by Dr. J. F. Highsmith of Fayetteville. Discussed by Dr. O'Hagan.

"Chronic Gastro-Intestinal Catarrh," was the title of a paper read by Dr. W. J. McAnally of High Point.

"A Study of the Bacteriology of *Specific Uretheris*" by Dr. E. B. Glenn of Asheville. Dr. E. C. Levy of Richmond, Va., Professor of Bacteriology discussed the paper.

WEDNESDAY.

The Treasurer read a letter from Dr. R. W. Mills of Troutman, N. C., in response to a notice of the annual dues due the Society by Dr. Mills. The Society unanimously voted that Dr. Mills' dues be remitted and that he be permitted to remain a member of the State Medical Society during his life time without further payment of dues.

The President appointed the following committee on nomination: H. B. Weaver, H. H. Harris, J. M. Baker, B. F. Halsey, Geo. L. Kirby.

The Finance Committee made a report showing the following on hand: May 31st, 1899 of \$307.71 and recommended the usual assessment of \$2.00 per capita and continued the salary of the Secretary and the Treasurer the same as heretofore; they also recommended that the Treasurer notify each delinquent member of his indebtedness.

Dr. C. S. Mangum of Chapel Hill presented a paper entitled, "Progress in Serum Therapy." Dr. McKenzie read a paper on "Antiseptic Midwifery."

discussed by Drs. Kent, McMullan, O'Hagan, Watson, Royster, Herring, Geo. W. Long and McBrayer. At this point discussion was suspended in order that the Board of Medical Examiners might report.

Dr. Anderson the Secretary of the Board reported the names of 85 applicants for license who had passed successful examination. Dr. Anderson further called attention of the Society to an attempt at fraud upon the part of one of the applicants, which, however, was fortunately frustrated by the vigilance of the board.

Conjoint meeting of the Society with the State Board of Health was held at 12 o'clock. Dr. Geo. G. Thomas submitted the report of the Board. Special attention was called in this report to the epidemic of small-pox in various parts of the State and the necessity of vaccination. Dr. Long, State Inspector, then made a report, giving his experience with the disease. The Board received a vote of thanks from the Society for the excellent manner in which they had performed their work. The President made the following appointments for the ensuing two years on the State Board of Health, by the Governor: Chas. J. O'Hagan, J. L. Nicholson, Albert Anderson, R. H. Lewis and Col. A. W. Shaffer, Sanitary Engineer. The Society then elected the following four gentlemen to serve on the Board: S. W. Battle, George G. Thomas, Henry W. Lewis and W. H. Dodson. The committee appointed to report on the President's address heartily coincided in the opinion that it was unwise to aid in the formation of medical societies in North Carolina that would directly or indirectly detract from the State Medical Society. They also recommended that a committee of three be appointed, the President himself to be chairman, to take under advisement the organization of insurance to be conducted within the Society. They further suggested that some steps looking towards reciprocity in the exchange of licenses between the different States having the same standard should be taken and that in their opinion it would add interest to the meeting of the Society to have a section on "Pediatrics and Railway Surgery." Dr. W. H. H. Cobb, President of the Tri-State Medical Society, in discussing the report of the committee, explained the object of the Society of which he was President and showed that it in no way would detract from the efficiency of the State Society. Dr. Booth moved that the report of the committee be taken up and passed upon in sections; rejected. It was then moved and carried that the report be accepted as presented by the committee.

Dr. Chas. J. O'Hagan nominated Dr. Geo. W. Long for President. Dr. Lewis moved that the nomination be closed and the secretary cast the vote of the Society for Dr. Geo. W. Long, of Alamance, for president; this motion carried unanimously. The following gentlemen were then nominated and elected: Dr. C. M. Poole, first vice-president; Dr. Williams, second vice-president; Dr. J. M. Parrot, of Kinston, third vice-president; Dr. W. D. Hilliard, of Asheville, fourth vice-president; Dr. Geo. B. Pressly, secretary; Dr. E. T. Sikes, treasurer. The Society then unani-

mously voted that the next annual meeting be held at Tarboro, N. C., in 1900, the exact date to be fixed later.

THURSDAY.

Dr. J. M. Baker, Chairman of the Committee on the Pitman prize having resigned, Dr. Richard H. Whitehead of Chapel Hill was appointed in his place.

"Asepsis and Antisepsis in Surgery" was discussed in a paper by Dr. Cheatham of Henderson, Chairman of section on "Anatomy and Surgery." Dr. F. T. Meriwether of Asheville presented a paper entitled, "Some remarks upon Coley's treatment of Malignant Growths."

"An interesting case of Renal Calculus" was presented by Dr. M. Bolton. Dr. R. E. Zackery, of Wilmington, presented a paper on "Gunshot Wounds," with report of a case.

Committee on nomination made the following report:

For Orator: T. S. McMullan, Hertford; Essayist, R. H. Whitehead, Chapel Hill; Leader of Debate, J. M. Parrot, Kinston; Board of Censors, G. G. Thomas, L. J. Picot, R. H. Speight, M. H. Fletcher, C. M. Pool.

Committee on Publication: Drs. R. J. Brevard, G. W. Pressly, D. O'Donoghue, A. J. Crowell, all of Charlotte.

Committee on Legislation: Drs. R. H. Lewis, Raleigh; E. T. Sikes, Grissom; N. Peabody, Durham; L. J. Picot, Littleton; H. A. Royster, Raleigh.

Obituary Committee: Drs. K. P. Battle, Raleigh; P. L. Murphy, Morganton; G. W. Purefoy, Asheville.

Delegates to American Medical Association: Drs. A. G. Carr, Durham; H. B. Weaver, Asheville; S. D. Booth, Oxford; N. B. Herring, Wilson; C. P. Ambler, Asheville; G. L. Kirby, Raleigh; M. Olivia Nelson Denison, Asheville; J. P. Monroe, Davidson; W. W. McKenzie, Salisbury.

Delegates to South Carolina Medical Society: Drs. J. A. Burroughs, Asheville; Nannie L. Alexander, Charlotte; F. H. Russell, Wilmington; W. H. Wakefield, Charlotte.

Delegates to Virginia Medical Society: Drs. Anna M. Gove, Greensboro; H. W. Lewis, Alexander; C. L. Minor, Asheville; W. H. Ward, Plymouth; B. L. Long, Hamilton.

Delegates to American Public Health Association: Drs. A. A. Kent, Lenoir; Carl Von Ruck, Asheville; J. W. Long, Salisbury; J. A. Reagan, Weaverville; S. H. Lyle, Franklin.

The paper of Dr. Mangum on "Serum Therapy," was here taken up and discussed in an interesting manner by Dr. H. B. Weaver of Asheville and Paul Paquin and Dr. Levy.

Dr. G. A. Ramseur, of China Grove presented an interesting paper on "Propagation of Typhoid Fever and other Infectious Diseases." Discussed by Dr. E. V. Glenn.

Dr. Jno. E. S. Davidson, of Lowesville, presented a paper on "Meningitis."

Dr. R. E. Zachery of Wilmington presented a paper on "Pernicious Malarial Fever."

The paper of Dr. E. A. Moyer on "Aconite Poisoning, its Diagnosis and Treatment, with report of case," and Dr. E. B. Goelet of Saluda on "Electricity as an aid to the physician and surgeon," were by motion referred to the Committee on Publication, the authors not being present.

Dr. J. W. Long, of Salisbury, presented a paper on "Ectopic Pregnancy." Discussed by Dr. Royster and Dr. Lott.

Dr. Chas. L. Pearson presented a paper entitled "Report of a case of Carcinoma of the Lung with Tuberculosis."

Dr. W. P. Pritchard of New York gave a "Report of a case of brain tumor relieved symptomatically by an exploratory operation upon the skull."

"Treatment of Typhoid Fever," a paper by Dr. Roberson, of Danville, was referred to the publication committee, the author being unable to be present.

Committee on the Pittman prize reported that two papers were submitted for their consideration, but that neither was, in their opinion, of sufficient original merit to win the prize. The new president of the Society was then duly installed.

The president appointed the following chairmen of sections :

Pathology and Microscopy—Dr. Carl V. Reynolds, Asheville.

Anatomy and Surgery—Dr. Arthur Pendleton, Warrenton.

Medical Jurisprudence and State Medicine—Dr. J. McCampbell, Morganton.

Obstetrics—Dr. W. E. Russell, Hickory.

Gynecology—Dr. B. Ray Browning, Littleton.

Practice of Medicine—Dr. W. E. Spencer, Yanceyville.

Materia Medica and Therapeutics—Dr. D. J. Hill, Lexington.

Chemistry and Physiology—Dr. L. P. Aaron, Mt. Olive.

Pediatrics—Dr. J. R. Irwin, Charlotte.

Railway Surgery—Dr. W. D. Hilliard, Asheville.

On motion by Dr. Lewis, the thanks of the Society were extended to the people of Asheville and the Buncombe County Medical Society, as well as the Oakland Heights Sanatorium for the kind attention and hospitality shown them. Also to the railway company for reduction of rates.

On motion this Society then adjourned to meet in Tarboro, the date to be fixed later.

To the Buncombe County Medical Society—our Hosts. So hearty was your welcome to all visiting doctors that I am constrained to thank you through the columns of the N. C. MEDICAL JOURNAL, and—

"By all the vows that ever men have broke,
In number more than ever woman spoke,"

I pledge myself, and each member of the North Carolina Medical Society, to a perpetual remembrance of the warm hospitality, and princely entertainment of our friends and brothers in "The Land of the Sky."

GUEST.

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Original Communications.

The Continued Fevers of North Carolina.*

By BENJAMIN K. HAYS, M. D., of Oxford, N. C.

II HAVE no apology to offer for bringing before you to-day a subject with which you are already familiar, which you have often discussed, and of which no doubt you are growing weary.

The frequency with which the continued fevers of North Carolina recur; the honest doubt that often exists in the mind of the most intelligent clinician as to the nature of the fever with which he has to deal; and the stern fact that the responsibility of solving the problem rests upon the practical country doctor, and not upon some theorist in a far away German laboratory, makes it imperative that this subject should ever be kept fresh in our minds.

I have no new theories to advance, but have tabulated answers to fifty circular letters of inquiry in regard to these fevers, sent to representative men in various sections of the State. In addition to the answers sent to me I have drawn from similar reports made in neighboring States, from the latest text books, and from current literature on the subject.

Having made my report I will be followed by gentlemen eminently qualified to discuss this broad subject in its various phases.

1. How to classify the fevers seen in your practice?

To this question the answers were: Malarial, Typhoid and Simple continued or Ephemeral. Six answers included Typho-Malarial and of these two indicated that they regarded Typho-Malarial as a distinct disease.

2. To what extent do they prevail and what is the mortality of each?

Typhoid fever was reported with about equal frequency in the different sections of the State with an almost uniform mortality of 5 per cent. Osler reported a mortality of 8 per cent. in eight hundred cases treated at Johns Hopkins. Malarial is much more frequent than typhoid in the eastern and central portions of the State, rare in the west. The mortality of malarial fever is practically nil with the exceptions of the rare cases of pernicious malarial seen in the extreme east.

*Read before the North Carolina Medical Society, Asheville Meeting, 1899.

Recent investigation has proved that malaria has been diagnosed in this country far more frequently than it exists. More quinine was used in 1880 than in 1890 and far more in 1890 than to-day.

It was the custom in former years, and I regret to say still is with some intelligent practitioners, to regard almost all irregular forms of fever as either malarial pure and simple, or in some way influenced by paludism.

There is no doubt that tuberculosis, typhoid fever and many forms of auto-infection have been repeatedly diagnosed and treated for malaria.

When the fever disappeared with the patient under the influence of quinine it was regarded as a positive proof of the accuracy of the diagnosis, and when the fever continued it was maintained with equal certainty that on a certain class of malarial fevers quinine had no effect.

From the year 1885 to 1890 inclusive, a larger number of deaths was reported from malarial than from typhoid fever in the cities of New York, Brooklyn and Baltimore.

During the past five years deaths from malaria have been very infrequent in these cities, while the mortality from typhoid fever has increased. We would like to believe that this reduction in the mortality of malaria has been due to improvement in treatment or sanitation. Unfortunately it can be accounted for on no other hypothesis than that of an error in diagnosis in the early reports.

3. State frequency and character of eruption?

To this question only one observer answered "Eruption in every case of typhoid." Three or four reported eruption in 50 per cent. of cases, quite a number answered 20 to 25 per cent. and others "seldom seen," "rare and indistinct," "very infrequent."

There is no doubt that the characteristic rose colored eruption noted by Northern writers is frequently absent in otherwise typical cases of typhoid fever seen in North Carolina, and that in this regard at least our fevers differ from those seen in the Northern states.

Loomis doubted if the rose spots were ever absent. Osler and Pepper agree that they are not always present, that they are more frequently absent in children, and that in some cases they are found on other parts of the body when absent from the chest and abdomen. When present they are regarded as pathognomonic.

4. Do you see typhoid and malaria in the same patient? (If so, state whether you regard this as a mere coincidence or do you believe the two to be combined in one disease—typho-malaria?)

To this question Dr. Osler replied "there may be combined infection—we have had one case. This we regard as a coincidence, and so far as our experience goes the malaria does not influence the enteric fever in any special way. A large number of our typhoid cases come from very malarious districts."

Dr. R. L. Payne, of Norfolk wrote, "Both poisons may exist in the same

patient, modifying the usual symptoms though usually the malarial element is eliminated early by the use of quinine."

A reporter of recognized ability who has devoted a great deal of study to this subject, confirming his diagnosis by microscopic examinations, writing from a section in which both forms of fever prevail. "Never; I believe the typhoid germs are killed by toxins from the malarial germs, hence the two cannot exist in same patient at the same time."

A number of reporters—men of experience and recognized ability, notable among whom was the Nestor of our society stated that they had not seen the two forms of fever in same patient.

The majority of reporters, however, recognized the mixed infection as a rare coincidence. Two reported typho-malaria as a separate disease and four others were in doubt.

A number of reporters objected to the term typho-malaria.

It was clearly shown that the term did not convey a definite idea, since one class of observers used it to indicate one condition, while others used it with an entirely different meaning. Thus, the term is employed to indicate the presence of malaria and the specific poison of typhoid fever; by others, malaria of a severe type in which the patient sinks into a typhoid state; while a third class of observers use the term to designate a separate and distinct disease. I have not been able to find it so used however by any standard authority, even among the older writers.

The term was introduced by J. J. Woodward of U. S. A., who wrote as follows: "Typho-malarial fever is not a specific or distinct type of disease, but the term may be conveniently applied to the compound forms of fever which result from the combined influence of the causes of the malarious fevers and of typhoid fever. The results of Woodward's investigations are too well known to be dwelt upon. Among the cases diagnosed by him typho-malaria there was a mortality of 8 per cent. Those diagnosed typhoid fever had a mortality of 35 per cent.

In our recent war with Spain large numbers of camp fevers received careful clinical study, aided by exact laboratory investigations, carried on both in the camps, and in Northern hospitals where many of them were taken for treatment.

Dr. Charles E. Nammack, writing of the camp fevers that he had seen in Bellevue Hospital said, "We found no reason to recognize a distinct type of continued fever which is neither malaria nor typhoid, or one which is a compound of both—the so-called typho-malarial fever."

Dr. Meyer stated that in thirty or forty soldiers treated at Mt. Sinai Hospital there was only one case in which there was any approach to a double infection.

One writer said that he made inquiries at the various hospitals of New York City concerning the double infection and learned that in all but one hospital the malarial organisms had been found in the blood of from one to five per cent. of the typhoid fever cases.

Dr. James Ewing has made the following valuable report, based upon the study of 800 cases of fever at Camp Wykoff. He said, "A great many cases which were indistinguishable from typhoid fever without the most careful clinical examination proved to be clear cases of infection with the aestivo-autumnal organism of malaria. Over 200 cases of typhoid fever were studied and in nearly all of these there was also malarial infection. In spite of these favorable conditions for mixed infections in no undoubted fatal case of typhoid fever (in which the diagnosis was confirmed by autopsy) was the malarial organism found. In five cases of typhoid fever the plasmodium of malaria was found in the blood during acute exacerbations occurring during convalescence from the typhoid fever. From these observations the following conclusions were drawn: (1) Mixed infection of typhoid fever and malaria undoubtedly exist. (2) When typhoid develops in a case of active malaria the malarial element nearly always becomes quiescent, and has little or no effect on the course of the typhoid fever. (3) Malarial infection frequently outlasts the typhoid infection and makes itself manifest during convalescence."

5. Do you see continued fever which is neither typhoid nor malarial? If so give clinical history of such a case?

To this question the majority of the answers were, "No." By others a mild form of fever was described lasting in some instances only a few days, in others three or four weeks and attended by headache and foul tongue, but no epistaxis, diarrhoea, tympany or rose colored spots. Those who had made microscopical examinations of the blood reported the malarial organisms absent, while nearly all agreed that this fever was uninfluenced in its course by quinine.

It is evident that the fever here described as a third form of continued fever by a limited number of reporters is regarded by others as a mild form of typhoid.

Dr. James, in the Loomis-Thompson system of practical medicine, the most recent authority that I have been able to consult, says of these fevers described as simple continued, ephemeral, catarrhal and febricula that they

Are far from uniform in their manifestations;
Comprise irregular cases of many different maladies;
Many are typhoid fever;
Some are due to unnoticed lesions of throat;
Many are due to fatigue or exposure especially to heat.

6. To what extent and with what result do you use quinine in such fevers?

Upon the mild form of fevers just described it was generally conceded that quinine had no effect. Dr. Robertson, of Danville, who likes the name typho-malarial and whose opinions are certainly worthy of most serious consideration writes: "If malarial I give commandery doses of quinine, and when the malarial element predominates, I obtain an abatement of temperature and all symptoms. I do not use it in typhoid fever, but often when not

tolerated in first two weeks of typho-malaria it does good service when the fever remits."

Over the names of three men of recognized ability from an Eastern town was the following: "In this section we always use quinine in all fevers at first and successfully in a large majority of cases. Cases not yielding to quinine in three or four days generally prove to be continued-malarial, typho-malarial or typhoid in order mentioned."

A large number of reporters stated that they had used quinine for the first three or four days for diagnostic purposes. If the fever was malarial in origin it yielded promptly, otherwise it generally proved to be typhoid, in which case quinine was worse than useless.

In a private letter Dr. Osler stated that, "Only a careful blood examination enables us to differentiate cases of the astivo-autumnal malarial from typhoid fever," but in their published writings both Osler and Thayer positively affirm that any form of malarial fever known in this country will yield to quinine in three or four days.

In a paper read before this Society two years ago on this subject, Dr. E. C. Register maintained that quinine was a positive and speedy cure for malaria, and quoted numerous leading authorities to that effect. His position was undisputed by those who discussed the paper at that time and since then has been confirmed by every observer who has based his diagnosis upon a microscopical examination.

The majority of doctors in North Carolina use quinine in the first few days of fever to aid in determining the diagnosis.

This has been my own practice, but recent investigation has convinced me that it is wrong. Take three cases of fever which present, when first seen, the same clinical picture. One is typhoid, one malarial and one due to gastric irritation. We give quinine to all three. Upon the typhoid patient its effect is to increase nervousness, produce nausea and perhaps hæmorrhage and death. The patient suffering from gastric fever is certainly made worse by the quinine and only the malarial patient cured by it. Since it has become possible to diagnose malaria with certainty by the microscope—a method both safe and simple—I maintain that it is wrong to hazard the use of quinine.

Conclusion—From this symposium no definite conclusions can be drawn since the opinions expressed have been so varied. My own conclusions in regard to the present status of the continued fevers of North Carolina are as follows:

1. Mixed infection does exist but is extremely rare.
2. The term typho-malaria is indefinite, misleading and should be abolished.
3. Malarial fever is diagnosed more frequently than it exists.
4. Malaria invariably yields to quinine, therefore there should be no continued malarial fever.
5. Typhoid is the only form of continued fever seen in North Carolina.
6. Tuberculosis, lagrippe, septic intoxication, septic infection (espec-

ially in child bed) thermal, and other forms of fever are often mistaken for either typhoid or malaria.

DISCUSSION.

Dr. Reagan.—I consider the paper a very valuable one, but my opinion is there is a difference in typhoid fever in this mountain country and typhoid fever in a different section. Dr. Miller, professor of the practice of medicine in one of the colleges of Atlanta, and myself had a conversation upon this point some years ago. Dr. Miller frequently visited the mountains in this and other sections in the summer time and saw many fever cases and he agreed with me that there is a difference in the typhoid fever of the mountains and the typhoid fever where malaria exists. Here we have no malaria. There is a large section of the country through here where it is unknown, and I suppose always will be unless it is brought here, but there are cases of malaria which we have to contend with, where persons have the malaria in the system and come here for treatment, and in cases of that kind the typhoid fever here is very much like the typhoid fever of other sections. I am a Tarheel, not by birth or education, but by adoption. I have been here fifty years, and I suppose that would entitle me to be called a Tarheel or North Carolinian. When I came to this country I had a great deal of malaria in my system. It was thought by physicians that I could live but a short time, but I have lived, while those physicians have all gone before me. I think there ought to be a distinction made between the mountain typhoid fever and the typhoid fever of malarial sections.

Dr. Royster.—At Dr. Hays' request I have made up my mind to make a few remarks on this subject. I have already on occasions before this read two papers on this subject before the Society. In the first one of those I took the ground that there was no other continued fever in North Carolina except typhoid and malaria. In the second, I pointed out by some practical work on the subject the proofs that I had brought to bear. I am still of the same mind and want to reiterate the statements I made in both of those papers, though I have recently done very little work in that direction, having been busy with other matters. I have not prepared anything for this discussion, and therefore must go over the ground that I have before done. In my former papers, as I said, I took the ground first that there was no third continued fever in North Carolina. I think the burden of proof rests upon some one who believes that there is, to prove it. In sections where we have malaria we also have typhoid. Dr. Reagan says there is no malaria in Asheville or the western part of the State. I do not know that any series of blood examinations has been carried out in sufficient numbers in fever cases to absolutely prove that question. I do not think I am prepared to believe that. I do not know anything about the so-called mountain fever, or why it should differ from typhoid fever in other localities. Second, I believe that quinine is a specific for malaria. I think sometimes that it is administered in a faulty manner, and I believe, as Dr. Hays

expressed in his paper, the opinion of Dr. Osler that the æstivo-autumnal type yields reluctantly to quinine. This is a smaller organism than the other two varieties, lives almost solely in the corpuscles, is much harder for the quinine to affect, and possibly more insidious in its onset and development. I have seen cases of that kind which yielded gradually to quinine, but very surely. Sometimes the fever would last ten days, would begin with a chill and temperature of 103, and fall half or one degree every day until it came to normal. I do not believe in the term "typho-malarial fever," and I concur in Dr. Hays' opinion that it should be abolished. There is no doubt that the two diseases may co-exist. I suppose I have examined the blood of about 150 patients with fever, and I have seen what I regard as two cases of mixed infection. It is my rule in every case of fever to examine the blood as soon as possible. If I find the plasmodium on the first examination I give quinine. If I do not I examine again the next day. This question of administering antipyretics, even quinine, just because the patient has fever, is pernicious. It is not the fever, as we understand, that is producing harm. That is only a surface symptom. My opinion is that to give quinine indiscriminately does harm. It clouds the diagnosis, as much as the continual use of morphine in appendicitis. I have not had experience with the co-existence of the two diseases to see which ultimately predominates, or to make any report as to the relation of the one toward the other. In running over these points hurriedly I may have omitted something, but my opinion remains the same as expressed two years ago although, as I say, I have made but little investigation lately. I must make the assertion again that the burden of proof rests upon somebody to study and name the third form of fever.

Dr. Booth.—The most excellent paper just read is very instructive. There are a few things in it in which I disagree with my friend Dr. Hays. One point that he makes, however, might be misleading, and at the same time he does not mean to mislead. He means exactly what he says. That is, that the term typho-malarial fever is misleading. That is a fact, yet there is a typho-malarial fever in North Carolina. It is not like the mixture which exists between the horse and the donkey—we do not get a mule, but we have the two diseases in the same patient at the same time. We have a case of fever here. The fever is low in the morning and high in the afternoon. You give him a dose of quinine and the fever becomes more regular and becomes a case of typhoid fever. You go ahead and treat your case of typhoid fever, and in the convalescent stage you have a regular case of intermittent fever. There are gentlemen here who say there is no form of continued fever in North Carolina except typhoid fever. Now when I commenced practicing thirty-two years ago there was an epidemic of typhoid fever in the section in which I commenced. We had the swelled abdomen, and tympanitis, a heavy coated brown or thick red tongue, delirium, with the patient sick from six to eight weeks. We knew nothing about antiseptics, yet we gave turpentine, and it certainly did the patient good. I suppose it

was its antiseptic properties. We had diarrhœa, sometimes almost impossible to control. We gave opium and nitrate of silver. We calked the bowels if we could, and we usually saved the patient if we did not have perforation. As a rule the patient got well. In the last ten or fifteen years we have in our section a continued fever. I do not know what it is. None of them die, so we cannot have any post mortem. We have very little tympanitis. They get well in two or three weeks. Quinine does not diminish the fever. I don't know what it is. A good many doctors call it typhoid fever. It is not a febrile fever. It is too long for that. It is not like the fevers we were acquainted with a good many years ago. As I said, quinine does it no good. I believe that quinine does typhoid fever harm. But in this fever, if you take care of your patient and give him antiseptics, even turpentine and calomel he always gets well, and they do not only get well under my treatment, but under everybody else's treatment. Those are the remarks I wish to make for the sake of the older men. The young doctor at the present time has a great advantage over the doctor when I was a young doctor. They teach them more, and they are much better prepared to doctor folks than we were then. They have the microscope. I never but once have seen the malarial germ on plasmodium. I looked in another man's microscope. I have a microscope, but I am not a microscopist. But for the older members of the profession I make these remarks in regard to typhoid fever. I think the older men will bear me out as regards the typhoid fever of the past and the so-called typhoid fever of the present.

Dr. O'Hagan.—Is there such a thing as typho-malaria? The discussion has wandered off into several side issues. I agree, though, with most of the gentlemen who have spoken, that there is no such thing as typho-malaria in this State, but I believe our fever is due to a mixed infection. Time and time again I have seen what we call typhoid fever change into the regular intermittent fever treated by quinine. I have seen again in the convalescent stage, malarial fever express itself in the usual way. Like Dr. Booth, I am an old doctor. I have gone through all manner of experience in fevers. The old typhoid fever with the classic symptoms has disappeared of late years. It is not in any manner so pernicious as it was, and I do not know but that the mortality then was due to overdrugging. There is one debt that we owe to-day to the homeopathsists—they have taught us how to accomplish much more with much less physic. Much harm has been done with physic, and more especially in the treatment of typhoid fever. I remember one case where the patient in 30 days took 90 grains of quinine daily and still survived. I will not go into the treatment of these fevers. You are all as familiar with them as I am. I will wind up by thanking Dr. Hays for the admirable paper he has read and the pains he has taken and the valuable information he has given.

Dr. J. H. Williams.—There is one point brought out of which I wish to make special note, and that is in reference to the so-called hybrid fevers—fevers of short duration. They are not fevers that depend upon any distur-

bance of the *prima via* that we know of, they are not malarial. We simply call them typhoid. They are not accompanied by the symptoms that accompany our well marked cases. I have observed typhoid fever in its home, Philadelphia, and you all know what typhoid fever is there. I have had an opportunity to observe it here in this mountain section of the country. We have here a fever symptom of short duration, about three weeks, that has been called by a great many catarrhal fever and gastric fever. A great many names have been given to it, but in almost every instance, and especially of late years, we find that these cases are reported as malaria. They had this form of fever, but what is it? Under the microscope it is shown to be typhoid. It is modified by the environment of the patient. It is modified by the newer methods of treatment, local application of water and all the methods by which we to-day control hyper-pyrexia. We do not give quinine, because we have no malaria here, except in people who come up here with their blood full of it. I believe there will come a time when typhoid fever as typhoid fever will almost disappear from the eastern part of our country, because that is where the germ best flourishes, and in such quantities that it is bringing about a personal immunity which by heredity will gradually eradicate the disease in its well marked form.

Dr. Hays.—Permit me to say in conclusion, that I have far more respect for the clinical experience of these gentlemen who have spent years in the sick room, than I have for any theories, and if my paper has done nothing else than bring out this discussion, I think I can congratulate myself upon having read it. In reply to Dr. Reagan—I agree with him. There is a difference in degree in the fevers we see in the eastern and western parts of the State. I believe they are both typhoid fever. So far as my limited investigations carry me, I believe that the literature of these western fevers is an unwritten book, and I therefore wrote to Dr. J. Howell Way, of Waynesville, for a paper on these fevers, which he is to read, and I am sure he will tell us definitely what they are, as he told me he had collected data on several hundred cases he had treated during the last fifteen or twenty years. In reply to Dr. Booth, he says he likes the term typho-malarial fever. I agree with him that we might use it if it conveyed a definite meaning. There is no objection to it if it conveyed a definite idea, but the term is misleading, therefore let us eliminate an equivocal term and use one in its place which is definite. Dr. Booth is still in doubt as to whether these mild continued fevers are typhoid or not. We all have known of cases in which a crowd will go on a picnic, or drink milk from a dairy, or do something in which the infection is known to be from a single cause. A large number of cases will occur—say twenty-four cases of fever. Six of them die from typical typhoid fever, six have a severe form, six have a mild form, six just feel badly, possibly have a headache and diarrhoea. Are we to believe that this one cause of infection gave four different forms of fever, or is it not more probable that the whole twenty-four had the same form but owing to the difference in the resisting power and the difference in the amount of poison taken, the fever had

a different effect. Dr. T. L. Booth was with me in an epidemic of fevers of this kind, in which I saw over 100 cases. He did not know what they were. Some half dozen of these were typical cases of typhoid fever. The rest were these mild continued fevers. I see no reason on earth for giving a different diagnosis for the two.

Typhoid Fever as Met With in Fayetteville and Surrounding Country.*

By DR. J. F. HIGHSMITH, M. D., Fayetteville, N. C.

THE physicians in Fayetteville and vicinity are accustomed to seeing cases of continued fever, which apparently come on as a malarial remittent, but is not controlled by malarial remedies, be they ever so well tried. I claim that this type of fever is typhoid, such as we have in this locality, and to illustrate, I cite the following case: Mr. A. came to my office Aug. 1st., complaining of chilly sensation, aching all over, fever 103, felt reasonably well until the day before consulting me, though he had been languid with no appetite for a week. Bowels had been regular, had no headache, epistaxis, general weakness, or any fever until July 31st., the day before I saw him, when he thought he had some fever but was at his work. From this time on for four weeks he had continued fever. When I first saw him I gave him a thorough purgative of calomel 9 grs., bi-carbonate of soda 20 grs., divided into three doses given every two hours, followed in six hours by a dose of salts. From this purgative dose the bowels were moved well. On the morning of the second day I gave quinine sulph. 30 grs., 10 grs., at 5 a. m., 7 a. m., 11 a. m. In the afternoon of the same day at 4 o'clock the temperature being 105, I gave acetanilide 5 grs., with bi-carbonate of soda 5 grs., and ordered it repeated in three hours if the fever was above 103. The second dose at 7 p. m. reduced the fever to 102. This plan of treatment, well regulated diet, quinine sulphate 30 to 40 grs., in the twenty-four hours with tepid baths of water and vinegar was kept up for seven days, fever fluctuating from 105 to 100. On the morning of the 7th, or the seventh day of his illness, I decided to give no quinine, but simply give nourishment and sponge baths, first, if the fever went above 103, if not controlled by baths and kept to 103 or lower, I ordered acetanilide as above, repeated every three hours until the fever cooled to 100 to 101. With this treatment the temperature was held down, it not being necessary to give more than two or three doses in succession to reduce temperature from 105 to 102. On the fourteenth day of his illness, the fever at its highest and without any anti-pyretic, at 4 p. m., did not register but 102. I then discontinued the anti-pyretics and did not repeat them in the case. The bowels had been slightly constipated up to this time. I had given several doses of epsom salts with good results. Each dose would give two or three movements with much relief to the patient. The fourteenth day the tongue being dry and some tympany of

*Read Before the Meeting of the North Carolina Med. Soc. in Asheville, May 30th 1899.

the bowels, I commenced on turpentine 5 drops with mucilage of acacia, tablespoonful, and gave this off and on for the remainder of his illness. From the fourteenth to the twenty-first, fever ranged from 102 to 100; from the twenty-first to the twenty eighth day, from 100 to 98 Far. I gave a well regulated diet, liquid peptenoid, milk, chicken broth, beef juice, stimulents as indicated. After the twenty-eighth day the patient made rapid recovery, no after sequel.

I report this care not for any peculiar symptoms manifested or special treatment in the case, but simply to illustrate in a rough way, the type of continued fever as it is most frequently seen in our section. All cases are not so mild as this, but would place this as an average case. Now and then will have a case come similar and will have either epistaxis, bowel complication, petichial eruption, but it is seldom to meet with these and when we do, it means a hard fight.

I will now report the following case to illustrate how similar the diagnosis was, and under the same treatment how different the results of treatment were: On August 1st, Mr. B. came to my office, on the same day with Mr. A., and with every symptom similar to Mr. A.; came from the same locality, had been drinking the same water, living on the same plantation with him. I gave him calomel followed by saline, then quinine 30 grains, in the a. m. for two days, then reduced to 20 grains per day, and then to 10 grains, dieted him, and on the fifth day he was out, no fever, slightly weak as a result of his illness. In the course of ten days he had entirely convalesced.

It has been my plan in these fevers in this locality to treat them in most cases as malarial fever at the beginning, not knowing in many cases in the beginning whether I had a case of typhoid or malaria, and could arrive at a diagnosis only by exclusion, and taking for granted that typhoid be excluded; then sometimes I don't know what I am treating more than an irregular and continued fever which has to run its course. For many of these cases do not yield to treatment for malaria, yet I think the gravity of the disease is modified or made milder by quinine in the beginning. While on the other hand many of them do not have a typhoid symptom more than the temperature record and that, you will find to be typhoid in character. Such being the case I often feel that I am abusing or needlessly using quinine in many cases and very likely my patient would do better and be more comfortable without it. But how are we to ever know the true cause of the disease? Is it malaria or is it typhoid? Can we arrive at the correct diagnosis without the use of the microscope and an analysis of the blood for the malarial and typhoid bacilli, that we may better know how to direct our treatment in the beginning of the disease? I think in most cases by a careful examination of the patient we can diagnose typhoid as met with in this section from the symptoms which it carries, even though we do not have the clinical symptoms well marked as is taught in text-books. One among the first things I take into consideration is the age of the patient. This disease is most apt to be met with between the age of 16 to 35 years.

The general expression of the patient is a wide awake nervous state, face and lips red, cheeks flushed and eyes bright as if the patient was in the most perfect health. The tongue appears contracted and red around the borders and on extending it will be tremulous, showing a nervous condition, may or may not be coated, moist and of a fairly good color and may remain so throughout the disease. The skin is usually dry, no moisture about it, as is found in malarial troubles and has not that sallow and anaemic appearance so common in malarial cases. After fever has lasted for fifteen or twenty days the patient will have periods of sweating which is not copious. A petechial or rose colored eruption is seldom found, and if so, slightly, and indicates bowel complication. The stomach is found very irritable and has to be watched, so much so that often I have thought that I was dealing with a case of gastric fever. The nervous complications are usually mild as compared to the low mutterings or wild delirium of typhoid enteric. Epistaxis, a most common symptom of typhoid, is seldom met with and when it does occur is not grave within itself, but is a signal in the case, and should warn the physician that he has a stubborn case to treat. The fever is the most marked symptom to govern us in the diagnosis, and in some cases the only thing upon which we can base the diagnosis, in this locality. The temperature record in most cases is very much like that taught in the text-books on enteric fever. Now and then I have seen in the bowels marked typhoid symptoms, much tympany and distention of bowels, gurgling in right iliac, diarrhoea, followed by hemorrhage, but this is not common and when it does occur the patient is apt to be a new comer, his first or second summer in this locality. The assimilation of the bowels is bad, and in them seems to be located the disease, which would appear to be a bilious enteric condition, but not such a state as would be looked for in genuine typhoid; still I believe that the condition existing in the bowels is typhoid; such as we have in this section. I am sorry that I have never been able to make pathological investigations of the true condition of the bowels. If in these cases it is not typhoid, why does not quinine control the disease. We know that quinine does not arrest the disease but as I have said before, in some cases where they bear quinine and it is given in good dose in the beginning of the disease, that it appears to lessen the gravity of the case and makes it much milder, still, it runs its course from three to five weeks, quinine or no quinine. The mortality rate I am not prepared to state, but it is certainly much less than in typical typhoid. As to treatment: get a nurse. Then first, I support my patient by giving a well regulated and easily assimilated diet. Such as peptonoids, beef juice, chicken broth, sweet milk, buttermilk, egg albumen water. For the last few months I have used less sweet milk as nourishment in these cases as many of my patients could not digest it. In these cases I have used buttermilk, chicken broth and beef tea instead, with much better results. I direct my patient to drink water freely for I believe it to be a safeguard to the various organs, and helps the excretory organs to throw off the poison of the disease from the system. Hydrotherapy, in the full sense, I have never used in treatment, but I believe when

the surroundings are suitable, it is good treatment for *some* cases *but not for all*. As to drugs in the beginning of the disease I usually give calomel 8 to 10 grs., with soda when I first see patient, if indicated, repeat the dose in four or five days. I keep the bowels well open. Like to have from two to four movements in twenty-four hours. I have often found that a dose of salts when the temperature rises is much better than an antipyretic. When there is no prostration from numerous actions, I think it best for the bowels to be purged off and on for the first two weeks of the disease and even throughout the disease in most cases purgatives may be kept up. Where stomach is sensitive with torpor of the lower bowels, enemas of warm water are of great service. I find that calomel in small dose, $\frac{1}{8}$ of gr., with soda bicarb., 1 gr., given every hour or two, kept up from twenty-four to thirty-six hours at a time, to be of much benefit by its antiseptic or alterative effect bringing about better secretions of the digestive tract. I use the calomel in this way after the first ten or fourteen days of the disease. Quinine, I most invariably use in large dose in the beginning of the disease: first seven days. If it has no influence over the fever I discontinue its use altogether save for its tonic effect in some cases. The "Woodbridge Treatment" I have never used, but am favorable to its modification. Certainly, so far as to small dose of calomel and thorough purgation in the beginning of the disease. After the first few days, when the fever has assumed its regular course, if there be any tympany, the tongue dry and indicates its use, I give turpentine and keep it up regularly throughout the disease. I also use it as stupes to the bowels. In some cases I have used salol with apparent good results, while in others, have used it with no benefit. Among many other remedies I have used nitromuriatic acid, phosphate of soda, tincture of iodine and carbolic acid (1 to 2) and many other remedies. But first, last, all time throughout the disease look after the lungs, heart, stomach, liver, kidney and bowels. And see that the proper food is used with as little residual matter as possible and that the assimilation be carefully watched and the strength of the patient maintained. This is the most important as has been my experience. And if your therapeutical remedies have not this in view then they are useless. I have found no specific or true remedies that never fail, but each case has to a certain degree to be treated as its own peculiarity demands.

In conclusion let me ask, are the cases of continued fever which we have in this locality, typhoid peculiar to this section; are they continued malarial fever, which has to run its course and is not influenced by cinchona salts, or is it typhoid fever modified by malarial infection, or the result of a combined infection? It is on this differential diagnosis I would like to be able to give a microscopical examination of the blood of a number of cases, such as we have in this locality, that it might enable us to tell which is dependent on malarial infection and those which are typhoid, or a combined infection. The time has come when every practicing physician should be prepared to make microscopical examinations of the blood, that the diagnosis in these cases may be made easy and positive.

Propagation of Typhoid Fever and Other Infectious Diseases.*

By G. A. RAMSEUR, China Grove, N. C.

WHEN my friend Dr. Costner, the chairman of this section, asked me to write a paper, I was in a quandary what subject to select, but the one just read has given me so much anxiety and thought, I at last decided to make it the basis for a few remarks, hoping thereby to provoke a lively discussion, nevertheless I fail to give much light on the subject.

The propagation of infectious diseases as typhoid fever, yellow fever, dysentery and malaria is of vital interest and importance to every practitioner of medicine.

In the province of prophylaxis the earnest and skillful physician can save more suffering and expenditure of money, and confer greater boons upon afflicted mankind than in his efforts to cure disease.

When our grand old science becomes so enlightened that she knows just what methods and means to apply to jugulate the dread infectious diseases, she will have conferred the greatest good upon man and should be called blessed.

It is a fact too well established to be controverted that typhoid fever and other infectious diseases, malaria included, are water-borne under certain circumstances.

I wish to premise, at this point, that these diseases are also fly-borne in their propagation under favorable circumstances.

I wish to speak, more particularly, as to the conveyance of infectious intestinal diseases as typhoid fever and dysentery, in this paper.

From recent observations I have concluded that typhoid fever in small towns, is fly-borne. In cities having a good system of sewerage with closed sinks and closets, in which the excrement is deposited and at once washed away, affording little or no opportunity for access and contact with flies the disease is necessarily water-borne.

On the contrary, typhoid fever in villages with open sinks and closets visited by myriads of flies carrying away the germs on their feet to the accessible dining rooms and kitchens and depositing them on the bread and meat and in the milk and water is, under such circumstances, fly-borne.

Again, typhoid fever prevails in cities, at any season and from time to time throughout the year, provided the germs remain active at all temperatures. While in villages, its rages are autumnal and most extensive during the hotter, drier months, conditions most favorable to propagation by flies, disappearing when the colder weather comes on putting an end to the migrations of these filth conveyors.

The importance of flies in the spread of these diseases, I believe, has been misunderstood, over-looked and unappreciated.

Contrary to views that are held and promulgated as the usual methods of propagation of infectious intestinal diseases, it is now clear to my mind that

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they are spread in small towns and rural districts almost exclusively by flies, and malarial diseases by water.

Since passing through the epidemic at China Grove last summer and fall, I am more than ever convinced of this fact. I at first attributed the propagation to the system of sewerage at the cotton mills, around which the fever was prevalent, the method of drainage, if such it can be termed, being cesspools, which I fully believed had infected the wells. If the disease was water-borne from wells infected by cesspools, then the whole hill was saturated, for there was fever in every quarter and around every well, beginning on the east side of the railroad and ending on the west. I do not think it possible these six or eight wells were all infected or even probable that any of them were the source of propagation in this epidemic, for there are private wells on the grounds and no fever prevailed in any of these families; and if due to infected wells, why did hoar frost curtail the epidemic?

I do not want to leave the impression for a moment I am defending the system of sewerage, for I regard it the most damnable and unconsiderate method and practice, and it is only a question of time when the hill will be saturated, and then the fever will be more far reaching and lasting than if fly-borne.

As I stated above, this epidemic began on the east side of the railroad about the first of June, being confined to one house and only one case. The next cases were in an adjacent house and it spread from house to house until six or seven families in this neighborhood had fever; these drank water from three different wells. Moreover, there were five or six families in this neighborhood who used the same water and who escaped infection. If water-borne, then all these wells were certainly infected, but how can we account for the escape of the other families who drank the same water. It is not possible they all had sufficient resisting power to overcome a dose of germs from day to day, and is it not more probable and plausible that flies carried the germs from house to house infecting the water and food, and when they ceased to be a factor in the causative relation the epidemic suddenly ceased? The disease spread from the east side of railroad to the west side and every street had its quota of cases. The streets all run parallel, the back parts of lots lying adjacent, rendering the kitchens and dining rooms of adjoining residences more exposed to flies that inhabit neighboring privies.

Some years ago, I remember a family living near by a free school house, had typhoid fever, and the nurses, not being properly instructed by the doctor, infected the well by rinsing the chamber and throwing the water about the well to be washed into it with the surface water. The school drank from this well, there being no well on school grounds. Typhoid fever prevailed in all the families that lived in this district and patronized the school. The epidemic continued throughout the winter, family after family and member after member falling victims until the school was suspended, because there were no scholars. This is a plain case of water borne infection. The epidemic that has been devastating Philadelphia the past winter, beginning during

mid-winter and continuing until the last of March, 1899, (five thousand had become victims and five hundred had succumbed,) is in marked contrast to epidemics in small towns with diverse water supply. "When flies are responsible, there are little neighborhood epidemics, extending in short leaps, from house to house without reference to water supply or anything else in common" as in some of the families at China Grove, who were entirely isolated and who did not have their water and so forth in common as was the case in other families. But when water supply is at fault, as it was in Philadelphia, the disease follows its course and use, "the only limitation being the resisting power of individuals drinking it and such household means as boiling and the like as tend to destroy disease germs."

Dr. M. A. Veeder, of Lyon, N. Y., who has made investigations in regard to conveyance of germs by flies, says: "Epidemics spread by flies tend to follow the directions of prevailing warm winds as though the flies wandering out doors after contact with some source of infection, had drifted with the wind, but nothing of the sort is perceptible in the case of water-borne disease." The result of his investigations as health officer and physician during the sojourn of our troops last summer is summed up thus: "In villages and camps where shallow open closets are in use giving access to flies to the chief sources of infection, flies form the chief medium of its conveyance. Hence in villages and camps they are usually fly-borne."

Dr. Veeder states in a paper read before the Buffalo Sanitary Club in December, 1898, that he cut short a grave epidemic of dysentery in its height, there having been forty cases and ten deaths and rapidly spreading from house to house without the occurrence of a single new case after the proper means of disinfection had been instituted as would make conveyance by flies impossible. "In like manner the past summer a lively epidemic of typhoid fever was ended in a day by means directed at conveyance by flies;" so, too, he cites instances, where malarial fevers subsided without the use of quinine by means directed against conveyance by water.

Take for illustration a case of typhoid fever in its prodrominal stage that is not confined to bed, and, while lingering around deposits the excrement in an open closet where, on a hot day, the dejections are literally covered with flies, and the doors and windows of adjacent houses leading into kitchens, pantries, and dining rooms, is it too much to presume that a microscope would reveal fly tracks of more or less fresh excrement, doubtless containing the Colon Bacillus and Bacillus of Eberth on meat, bread, sugar, etc? Is it unreasonable to contend that a single case of typhoid fever could start a severe local epidemic under such circumstances?

Dr. Veeder asserts he has made culture of bacteria from fly tracks and also from the excrement of flies while acting as health officer in the army.

Asepsis and Antisepsis are the sheet anchors in subjugating the forces of infectious diseases. "Clenliness is next to Godliness" and with scrupulousness in regard to room, patient, linen, etc., and through disinfection of

the stools and their prompt removal the danger of a spread of the disease is reduced to a minimum.

The greatest difficulty in these factory districts where laziness and filthiness is the rule is to enforce your instruction in this regard. For this reason I was not successful in jugulating the epidemic at China Grove last summer, but was able to limit its ravages in families who were faithful in performing their part in the work. It is of paramount importance to thoroughly disinfect the excreta before they are removed to closet, etc.

I feel sure, if the rules of asepsis and antisepsis are rigidly enforced in every detail, the physician is master of the situation and can curtail these diseases in small towns.

DISCUSSION.

Dr. E. B. Glenn.—Dr. Ramseur's paper was very interesting, and along a line of thought I have been giving a little study for the past few weeks in the Jefferson Hospital laboratories in Philadelphia, and I have some very interesting plates showing that the fly can carry typhoid fever. Of course it is not new that the fly can carry typhoid, but I do not know of any one who has tried any experiment as to the length of time it can carry it, so I determined to make some experiments, with the aid of Dr. Rosenberger of Philadelphia. We found it very difficult to get any flies at that season of the year, so I sent to Florida and had a lot of bed bugs, cockroaches and flies sent to me. I took the flies to the laboratory in a mouse jar. There I cut the flies wings so that they could not get away. The fly was placed in this jar after it had been placed on a culture of the typhoid fever bacilli. In half an hour he was allowed to walk over an agar plate, and there with his feet inoculate the medium with typhoid bacilli. Of course it was a mixed infection, on account of the fly carrying other organisms naturally found on its feet. The fly was allowed to walk on the media for half a minute. Then he was placed back in the mouse jar. The next day he was placed on another Petri dish spread with agar. Those where the wings were pulled out and those which had a leg broken lived but a little while, but the flies which were well taken care of lived commonly 48 hours. The bed bug and the cockroach lived much longer. I do not know what caused the death of the fly, but I was able to demonstrate that the cockroach carried the infection as long as 96 hours; that no trace of typhoid bacilli was found, but we found various other organisms. The bed bug smears his culture, because he drags on the ventral surface. The fly lifts himself up and infects at different points, while the cockroach is decidedly more cleanly than either in inoculating the media. You will find in one of those plates that the fly not only carries the typhoid bacillus on his feet but also on his wing. He had one wing left, and all the time was trying to fly, and along with that he left a culture of typhoid fever bacilli. I brought these plates, not to show that I had found that the fly does carry the typhoid bacillus, but how long they might carry it. This is a very important point in my opinion, and I think one reason why the prevalence of the disease was so great in the army was because there was an

abundance of flies about the latrines which were so close that the flies flew from place to place in a very short time, very often falling into milk and water, and lighting on uncooked food and cooked food which was not heated again before being eaten. After the food was eaten the men would naturally be taken with typhoid fever, if their power of resistance was not great enough to destroy the organism. The organisms there present on the Petri dishes are of course various pus organisms, and some of the numerous organisms carried by the fly, and the fly is not the only thing that carries infectious diseases. I do not know that infection of malarial fever by water has ever been demonstrated. It has been positively proven that malaria is carried by the mosquito, and that it is inoculated by his bite, and that it is carried by certain kinds of mosquitoes, at different times in different parts of the country. Every mosquito that bites does not carry malaria. The gray dappled mosquito is one of the mosquitoes that carries it. This theory was claimed to be introduced by some Italian observers, but the *Philadelphia Medical Journal*, March 11th, 1899, gives an account of an American named Crawford advancing this theory in 1807. Dr. A. P. A. King claimed that the negro enjoys a partial immunity on account of the character of his sudoriporous secretions and dark skin, the mosquito not being able to see him quite so well.

In some parts of Europe, which I don't recall at this moment to prove that malarial fever was carried by mosquitoes, an observer, Dr. Mason, if I remember correctly, took some up into the mountains to a home for the infirm, where some of the inmates had been for a number of years. Malarial fever had never been known there. They took these mosquitoes and put them into a room with three patients and allowed them to stay all night. In something like a week the patients began to feel a little chilly and had a slight rise of temperature, but not marked chill, and no plasmodia was found in the blood at this experiment. A little later they recovered by doses of quinine. There was only one willing to undergo the experiment again. They got other mosquitoes and placed the patient in the room as before, and all the characteristic symptoms of malaria occurred with the plasmodium in the blood, and fifteen grains of quinine was given daily hypodermically which cured him of the characteristic chill, fever and sweat. Up to this time I have been unable to find any data which proves any propagation of malarial fever by water or air, but it will no doubt be attempted in the near future.

In reference to the importance of the manner in which infection is carried by bed bugs and cockroaches in the laboratories is that often the excreta from patients are thrown around the room on soiled linen, and if these parasites are there they can carry it into the walls of the room and afterwards bring it back again, after fumigation has been completed. Therefore in such instances disinfecting agents which cannot reach or destroy the carrier and his infection is undesirable and imperfect. I think Formaldehyde is the best.

In reference to the propagation of tuberculosis by bed bugs, I recently noticed a case in the *American Microscopical Journal*, October 22nd, 1894 page 295, in which Alleger was quoted by Craig as giving a report by Denevre,

in which a case of tuberculosis was acquired in the bed of a brother who had died of tuberculosis. After the brother's death it was noticed his body was covered by bed bug bites, and investigation showed the bed bug present in large numbers, and 60 per cent of the bugs possessed the power of infecting guinea pigs, which afterwards died of the disease, although the room was fumigated before the second brother occupied the room, evidently proving that the bugs sought a hiding place during the process of disinfection. A report of the work carried on in the Jefferson Hospital Laboratory by Dr. Rosenberger and myself will appear in the *Philadelphia Medical Journal* on the 5th of June, in an address read by Prof. W. L. M. Coplin before the Pennsylvania State Medical Society, at Johnstown, May 17th. I wish to thank Dr. Ramseur for his excellent paper.

Operation for Perforation in a Case of Typhoid Fever.*

By EDWARD MARTIN, M. D., Philadelphia,
Surgeon to the Philadelphia, Howard, and St. Agnes's Hospitals.

AS it is likely that, in the near future, operation will be the rule rather than the exception in cases of perforating typhoid ulcer, it is well that all instances of this operation, whether successful or not, should be published, that thus the profession at large, aided by the medical tabulator, may form a just estimate as to the average chance for life which this form of intervention affords.

The subject of this report was a boy, 12 years old, who was admitted to St. Agnes's Hospital on the 2nd of May. He had been ill for about three weeks with fever, headache, pains in his abdomen, loss of appetite, coated tongue, abdominal tenderness, and marked tympany. On the morning following his admission, about eight o'clock, he complained bitterly of pain in the lower part of the abdomen. His pulse became rapid and weak, his temperature dropped to about normal, and the abdomen became tympanitic. He was transferred to the surgical service thirty-two hours later, and was operated upon at once. An incision was made in the right linea alba, a little below the umbilicus. Offensive pus escaped as soon as the peritoneum was opened, and the coils of intestine were found glued together by a fibrinous exudate, which, upon being broken down, allowed pus to escape in considerable quantities and apparently from many separate pouches. The intestines of the lower segment of the abdomen were so firmly matted together by exudate that much difficulty was experienced in locating the perforation. It lay in a coil placed far back, well within the pelvis. The guide to it was furnished by bubbles of gas and intestinal contents. The loop containing this perforation, the lower part of the ileum, probably not far from the ileo-cecal valve, but this could not be determined positively,—was brought up by stripping it of its adhesions, and the perforation, about the size of an infant's finger-nail; was turned in and secured with a Lembert suture of fine cumol catgut; the adherent coils of intestine were then freely separated from each

*Selected from University Medical Magazine, Penn., June, 1899.

other, strips of fibrinous exudate being wiped and picked off, and a large quantity of thin stinking pus being evacuated, the entire belly cavity was then dried out by gauze sponges and thoroughly flushed with normal saline solution. The two flanks were finally drained with glass drainage-tubes; the pelvis and the upper segment of the abdomen by large gauze wicks. The operation was finished in half an hour, and the child was much shocked. He partially recovered under hypodermoclysis and stimulating rectal enemata, and his bowels were moved freely. The fecal vomiting, from which he suffered before operation, recurred with the reaction from shock, and he died sixteen hours after operation.

From the operative stand-point it is important to note that the length of time which had elapsed between perforation and operation, thirty-two hours, made the finding of this small perforation extremely difficult.

I have operated in one other case of typhoid fever perforation, or at least it was so diagnosed by the attending physician. The history was vague, and I can only say the diagnosis of typhoid fever was probable but not proven. Perforation had probably existed for several days, and the exudate had been limited by a plastic peritonitis, so that the operation simply consisted in cutting into a large abscess containing feces, pus, and gas, into which the perforation of the ileum, placed near together, opened. This patient recovered with a fecal fistula.

One other case of typhoid fever I was called upon to operate on over ten years ago. It was in a town near Philadelphia. The patient was in a moribund condition, with enormous distention of the abdomen. There had been no sharp pain, no sudden shock, and the belly, in place of being hard, was simply tympanitic. My own diagnosis was that of ante-mortem tympany from intestinal paresis. The attending physicians insisted that there was a perforation present, and I was persuaded to operate. An exploratory incision was made, occupying but a very few minutes. The peritoneum was found to be absolutely healthy. The patient died within an hour, his end being no doubt hastened somewhat by useless intervention.

I know of one other case in which the abdomen was opened on a mistaken diagnosis, and this mistake, with the growing enthusiasm for intervention in typhoid fever, is likely to occur often enough to give the legitimate operation a serious set-back. There are certainly cases in which a differential diagnosis is extremely difficult. In intestinal paresis there is likely to be an absence of pain, of fixed tenderness, and of the belly hardness which is a common accompaniment in peritoneal inflammation. Moreover, shock, and a falling temperature are not characteristic of this condition. When, however, a patient in the second or third week of typhoid fever complains of sharp, sudden, persistent, agonizing pain, of a great increase of tenderness; when this is accompanied by symptoms of marked constitutional depression, and it is followed by rapid and life-threatening tympany, if there is the slightest prospect of surviving operation, the abdomen should be opened at once.

North Carolina Medical Journal.

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Editorial.

TYPHOID FEVER.

No disease of modern times, unless it be tuberculosis, has received greater consideration at the hands of scientific medical men than Enteric Fever. From such a statement, one might well draw the conclusion, and it would be a correct one, that Typhoid Fever is of almost universal occurrence in civilized communities, and that a treatment of specific character and practical application has yet to be found. The immense loss to communities by the endemic and epidemic presence in their midst of the disease can hardly be estimated, and yet from a theoretical standpoint, no disease should be more easily prevented. The lamentable failure of the governmental medical department to stay its ravages among the soldiers stationed at the various camps throughout the country during the last war, emphasises the fact however, that the prevention of Typhoid Fever presents difficulties of a more serious nature than would appear at first sight.

Whatever may be the auxiliary causes, there can be no question in the minds of medical men that a contaminated water or milk supply must be held as occupying the foremost place as a etological factor in the production of Typhoid Fever. The histories of numerous epidemics where the source of infection was distinctly traced to one or the other of these two causes, and where the usual corrective measures were followed by a prompt disappearance of the disease are now too well known to admit of doubt upon this point. A certain proportion of cases would seem to occur as a result of contact with those suffering from the infection. This brings up a question relative to the contagious nature of

Typhoid Fever, that is frequently asked us by the laity. Instances have multiplied showing that such danger does exist in the promiscuous use of utensils, towels, and in handling the patient and afterwards eating without properly disinfecting the hands. This latter accounts for the comparative frequency with which nurses in attendance upon Typhoid Fever cases are attacked by the disease. Annequin reports the morbidity from Typhoid Fever in the French army as 1.07 per cent., while that of the nurses in the garrison hospitals amount to 9 per cent. The same relative proportion is said to exist in the military establishment of other countries.

Typhoid Fever is a more prevalent disease in this country than in Europe, though this does not seem to have been always the case and is due to the better sanitary conditions existing in the older country. Such cities as Munich, Hamburg and Berlin, the cleanest city in the world, stand out in marked contrast with any half dozen American cities that might be called to mind. In Berlin Typhoid Fever is said to be practically unknown; quite an object lesson as compared with Philadelphia, for instance. where during the first three months of 1898, 1,713 people died from the disease, and from present reports the mortality from the same cause is not likely to be materially reduced during the present year. The rural sections are an even more inviting field for Typhoid Fever than the large cities, and recent statistics have shown that in the country districts of the State of New York the mortality from this disease as compared with the total mortality from all causes is considerably greater than in New York City, for example. The reason for this, once typhoid fever has become endemic, is obvious, and anyone who cherishes a sentimental fondness for drinking again from the well of his childhood, at the old homestead, had best consider whether at the same time he is not taking a somewhat concentrated dose of the *bicillus typhosus*. When public opinion will demand as prompt an enforcement of the precautionary measures against the spread of Typhoid Fever as is the case with such diseases as small pox or yellow fever, modern civilization will witness another triumph in the saving of human life. Dr. Osler in a much quoted address before the Medical Society of New York reminds us of a recent period of our national history in the following forcible words: "Last autumn this nation, in the moment of victory had a rude awakening, a sudden conviction, a hard lesson. A voice like that heard in Ramah went up throughout the land—'lamentation, and weeping, and great mourning.' From Montauk Point to San Francisco, from Minneapolis to Tampa. Rachels weeping for their lads."

It may be regarded as an axiom of widespread application that there is no method of treating any disease that is not open to many exceptions and modification; hence, as has been well remarked, were it possible to practice physic by rule, the function of the physician would be small indeed. In the discriminating judgment and the special adaptation of treatment to special cases consist therefore the success or nonsuccess of the physician. In the medical management of Typhoid Fever we have an apt illustration of the truth. The

extreme advocate of the Brand method on the one hand and of the elimination or antiseptic treatment on the other, both fortified with a formidable array of statistics would seem at times to sweep away all individual opinion and make a hard and fast rule to which there could be no exception—as neither of these plans of treatment is in any sense of the word specific it follows that neither party can be accorded the right to sit in judgment.

In spite of the violent opposition in certain quarters often upheld by popular prejudice, it must be admitted that in the majority of instances the Brand treatment, or some modification of it, affords the best means of combating Typhoid Fever that has yet been introduced. While by no means adapted to every case and under all circumstances, and seldom used now in the harsh manner first considered essential, it has so far seemed to hold its place in the estimation of the profession, and a more extensive use has served to define its scope of usefulness more clearly. The suspicion expressed by some that the bath treatment was conducive to intestinal hemorrhage is not borne out by experience. In 586 cases studied by Hare before the bathing treatment came into vogue, 2.9 per cent. died from perforation, and 1.88 per cent. from hemorrhage; of 2902 patients receiving the Brand treatment or some modification of it, 2.9 per cent. died of perforation and 1.2 per cent. of hemorrhage.

The eliminative and antiseptic plan of treatment has found a very firm opponent in Prof. Osler, of Baltimore, who protests against the assumption that Typhoid Fever is to be considered chiefly as an intestinal rather than a constitutional disease. In support of this position quite a number of cases have been put on record where the intestinal lesion were very slight or entirely absent but where during life the patient presented a clinical picture of the disease, the blood showing Widal's reaction, and after death examination of the abdominal organs demonstrated the presence of the *B. Typhosus*. In the matter of employing purgation, great discretion is necessary, at least after the first few days. It is a matter of common observation that constipated cases of Typhoid Fever usually do well and Skirving has studied 500 cases treated at Prince Albert Hospital, Sidney, of which number 404 were constipated, while 76 had diarrhœa; 88 out of the 500 died, of these 88, 53 had diarrhœa.

Quite a good deal of interest is aroused on the possibility of a serum treatment for Typhoid Fever, the nature of the disease being supposed to offer an exceptionally favorable field for this form of therapy. Waeger has reported four cases treated by a specific human serum prepared after the method of Weisbecker, in which the treatment was followed by an apparently rapid and favorable termination.

To Stop Nose-bleed.—Grasp the nose between the thumb and forefinger and press backwards against the alveolar border of the maxilla and downward against the teeth. This compresses the *lateralis nasi* and septal arteries. Satisfactory results also follow the use of tannin and acetanilid.—*The Laryngoscope*.

Board of North Carolina Medical Examiners.

The following are the questions asked the candidates for license at the Asheville meeting of the Board of North Carolina Medical Examiners :

Questions on Surgery.

BY D. T. TAYLOR, PRESIDENT, Washington, N. C.

1. What are the symptoms and treatment of a fracture of the neck of femur within the capsule?
2. What is the treatment of each of the varieties of dislocation of hip-joint?
3. Describe, in a general way, the principal methods of amputation.
4. Give the causes and treatment of acute intestinal obstruction.
5. Give the differential diagnosis between scirrhus and non-malignant breast tumors.
6. Describe herniotomy.
7. What is the difference between traumatic inflammatory fever, septicæmia and pyæmia?
8. What is shock, its course and treatment?
9. In what regions must abscess be opened before fluctuation is detected?
10. What is the differential diagnosis between concussion and compression of the brain? And what are the indications for trephining?

Questions on Practice of Medicine.

BY W. H. H. COBB, M. D., Goldsboro, N. C.

- Define Acute Ileo-Colitis, giving Dietetic and Medicinal treatment?
 Give Diagnosis and Treatment of Typhoid Fever?
 Define Pneumonia and give treatment?
 Give Symptoms and Treatment of Insolation?
 Define Hodgkin's Disease, giving Morbid Anatomy and Symptoms?
 Give Causes, Symptoms and Treatment of Acute Bright's Disease?
 Define Neurasthenia, giving Etiology and Symptoms?
 What is Asphyxia? How is it produced?
 What are causes of death from Asphyxia?
 Define Remittent Fever, giving Treatment?
 Give periods of Incubation, dates of Eruption and length of danger of Contagion of the five Eruptive Fevers?

Materia Medica.

BY DR. E. C. REGISTER, Charlotte, N. C.

1. What are the preparations and doses of arsenic?
2. Name the alkaloids of opium and their doses.
3. What are the medicinal uses of nitrate of silver?
4. Name the two principal cardiac sedatives and compare them physiologically.
5. What substances are incompatible with the mercurial preparations?
6. What are the contra-indications for the use of anæsthetic?

7. Name and describe the potassium salts that act as cathartics.
8. What is the difference in the action on the heart between alcohol, digitalis, and strychnine?
9. What is the difference between tetanus, picrotoxin and strychnine spasms?
10. What are the two principal conditions with which acute alcoholism may be confounded? Give the differential diagnosis of each.

Examinations in Gynecology.

BY ALBERT ANDERSON, Wilson, N. C.

1. Describe some of the methods of making a physical diagnosis.
2. Name the varieties of vaginitis, complications, symptoms and treatment.
3. Classify endometritis; give causes, symptoms, complications and treatment.
4. Classify uterine displacements and give etiology.
5. Give principal disorders and treatment of menstruation.

OBSTETRICS.

1. Describe the process of fecundation and give brief description of the elements entering into it.
2. Signs of pregnancy.
3. Give diameters, planes and axes of pelvis.
4. Define puerperal fever and give its causes and treatment.
5. Give variety of forceps, their action and indications for their use.

PEDIATRICS.

1. Give difference between the clinical investigation of diseases in children and adults.
2. Give a short outline of the general management of children as to feeding, bathing, sleep, clothing and exercise.
3. Define and describe these terms: Caput Succedaneum; Cephalhæmatoma; Asphyxia; Icterus Neonatorum; Ophthalmia Neonatorum.
4. Give the order and age of dentition.
5. Give differential diagnosis between varicella and variola.
6. Give diagnosis and treatment of diphtheria.

Examination in Anatomy.

BY DR. J. HOWELL WAY, Waynesville, N. C.

1. Describe the superior extremity of the ulna.
2. Describe the knee joint.
3. Name the muscles which pass from the scapula to the upper limb and describe the deltoid.
4. Describe the coeliac axis and its branches.
5. Describe the cephalic vein.
6. Describe the fourth ventricle of the brain.
7. Give the course and distribution of the posterior cord of the brachial plexus.

8. Locate the heart and describe its arterial ventricle.
9. Describe the popliteal space, naming structures contained therein and their relations.
10. Locate the right kidney and give its relations.

Chemistry.

BY DR. K. P. BATTLE, JR., Raleigh, N. C.

1. Give the characteristic differences between an acid and an alkali.
2. Describe chlorine; give its physical properties and its chemical action.
3. How would you test for sugar in the urine?
4. How would you detect an excess of carbonic acid in the air?
5. Describe the phenomena of electrolysis.
6. Describe nitrogen, naming its oxygen compounds and its relation to atmospheric air.
7. What are the physical and chemical properties of phosphorus?
8. What is the difference between chemical union and mechanical mixture?
9. Explain what is meant when drugs are said to be chemically incompatible.
10. Give a test for the purity of chloroform.

Examination in Physiology.

BY THOS. E. ANDERSON, M. D., Statesville, N. C.

- I. Define Proteids; how and where digested? Define Amyloid foods; name agents employed in their digestion.
- II. Explain the physiological circuit essential to a reflex action, and cite an instance.
- III. Differentiate voluntary and involuntary muscles; illustrate.
- IV. Explain Amœboid movement; in what organism exhibited?
 - (a) What is Diapedesis?
 - (b) What is Phagocytosis? and to what organ accredited?
- V. In what glands of the body is function undetermined?
- VI. What is the function of the Par Vagum?
- VII. In the function of vision, what is understood by "accommodation?" Name structures employed.
- VIII. Give in cubic inches of air the respiratory capacity of a healthy adult.
- IX. From what part of the Cortex Cerebri do the leg, arm and face receive their motor impulses.
- X. Describe the circulation of the blood in the infant just before and just after birth.

The following named persons passed satisfactory examinations before the examining board and were granted license to practice medicine and surgery in North Carolina:

Dr. I. Warren Achorn, Boston.	Dr. W. J. Meadows, McAdenville.
Dr. H. H. Boss, Rocky Mount, N. C.	Dr. I. H. Manning, Wilmington.
Dr. C. W. Banner, Mt. Airy, N. C.	Dr. Louise Anderson Merrimon,
Dr. D. A. Boyd, Plott, N. C.	Asheville.
Dr. T. L. Brooks, Black Creek, N. C.	Dr. J. M. Newbern, Powell's Point.
Dr. A. W. Calloway, Asheville, N. C.	Dr. J. E. Nobles, Greenville.
Dr. H. M. S. Cason, Edenton, N. C.	Dr. W. O. Nisbet, Waxhaw.
Dr. G. W. Cardwell, Reidsville, N. C.	Dr. Paul Paquin, Asheville.
Dr. J. M. Covington, Rockingham.	Dr. W. D. Price, Charlotte.
Dr. Calvin M. Case, Asheville, N. C.	Dr. W. T. Parrott, Kinston.
Dr. T. M. Copple, Lexington, N. C.	Dr. J. F. Peavy, Asheville.
Dr. T. W. Davis, Louisburg, N. C.	Dr. J. H. Peeler, Faith.
Dr. W. W. Duson, Asheville, N. C.	Dr. G. M. Van Poole, Craven.
Dr. T. D. Drewry, Garysburg.	Dr. T. C. Quickel, Lincolnton.
Dr. A. B. Drafts, Lexington, N. C.	Dr. Geo. H. Ross, Oakdale.
Dr. B. W. Fassett, Crs. Rds. Ch., N. C.	Dr. R. G. Rozier, Rozier.
Dr. Wm. Fountain, Tarboro, N. C.	Dr. R. M. Roberson, Pittsburg.
Dr. Robt. L. Felts, Charlotte, N. C.	Dr. O. L. Ray, Bangor.
Dr. T. I. Fox, Franklinville, N. C.	Dr. Chauncey Rakestraw, Charlotte.
Dr. D. L. Fox, Worthville, N. C.	Dr. S. H. Von Ruck, Asheville.
Dr. D. W. Griffin, Reppetoe.	Dr. Charles L. Scott, Mebane.
Dr. Edmond Gladmon, S. Pines, N. C.	Dr. J. W. Slate, Quaker.
Dr. G. W. Hays, Lancaster, Ky.	Dr. T. W. Shore, Boonesville.
Dr. J. D. Heathman, Woodleaf, N. C.	Dr. J. S. Slate, Mizpah.
Dr. N. C. Hunter, Enfield, N. C.	Dr. O. S. Smith, Waycross.
Dr. H. G. Heilig, Salisbury, N. C.	Dr. R. T. S. Steele, Rockingham.
Dr. R. D. Holt, Smithfield, N. C.	Dr. S. W. Schell, Lenoir.
Dr. H. C. Houston, Walkups.	Dr. J. T. Smith, Westfield.
Dr. R. E. Hollingsworth, Mt. Airy.	Dr. Jas. A. Smith, Raleigh.
Dr. J. C. Hall, Star, N. C.	Dr. W. H. Smith, Marshville.
Dr. Wm. P. Isley, Burlington, N. C.	Dr. T. B. Tyson, Covington.
Dr. T. O. Joyner, Seaboard, N. C.	Dr. J. R. Thompson, Colly.
Dr. C. C. Joyner, Greenville.	Dr. H. McKee Tucker, Raleigh.
Dr. Geo. H. Kirby, Raleigh.	Dr. J. S. Wise, Chester, S. C.
Dr. W. C. Lauderdale, Asheville, N. C.	Dr. J. P. Whitehead, Rocky Mount
Dr. W. G. Leak, Francisco, N. C.	Dr. A. R. Winston, Franklin.
Dr. I. W. Lann, Siler City.	Dr. W. M. White, Statesville.
Dr. L. H. Love, Wilmington.	Dr. F. A. Ward, Gliden.
Dr. J. D. MacRae, Fayetteville.	Dr. L. A. Walker, Stone Creek.
Dr. D. G. McKethan, Fayetteville.	Dr. E. J. Widby, Lenoir.
Dr. H. S. Monk, Newton Grove.	Dr. J. B. Wright, Coharie.
Dr. W. E. Miller, Burlington.	Dr. J. P. Wimberly, Rocky Mount.
Dr. H. R. Moore, Burlington.	Dr. Ida M. Wilson, Charlotte.
Dr. C. S. Maxwell, Mt. Olive.	Dr. R. F. Yarboro, Louisburg.

News and Items.

Dr. Wm. Osler has resigned the deanship of the Johns Hopkins Medical School.

Dr. H. H. Mudd, St. Louis, has been elected dean of the medical department of Washington University.

Dr. J. R. Reitzel has removed from Woodleaf to High Point, N. C., for the practice of his profession. We wish him success in his new field.

Dr. J. William White, professor of clinic surgery at the University of Pennsylvania, Philadelphia, has recently been appointed by President McKinley a member of the Board of Visitors of the Military Academy at West Point.

When the doctor tells a woman to diet she eats less at the table and more in the pantry.

Prof. Roswell Park makes the startling prophecy that if for the next ten years the present relative death rates are maintained, in 1909 there will be more deaths in the State of New York from cancer than from consumption, small-pox and typhoid fever combined.

The medical profession has, alone among the learned professions, always adopted the plan of charging according to the means of the client, and this custom has long been an accepted fact, so much so as to be understood to form the basis of the contract, even when the charges have to be recovered by legal process.—*Medical Times and Hospital Gazette*.

Nicola Tesla, the great electrician, is at Colorado Springs making some experiments in the rarefied electrical atmosphere of Colorado. From the number of electrical belt advertisements in Denver's daily newspapers we feel certain that Mr. Tesla's experiments will be seriously interfered with by the extra electrical waves generated here in Denver.—*Colorado Medical Journal*.

The eminent surgeon closed his pocketbook with a snap on the \$100 fee a wealthy patient had just paid him for a successful operation for appendicitis.

Tell me the appendix vermiformis is a useless organ, will you?" he soliloquized.—*St. Louis Clinic*.

Typhoid in the Army.—The board appointed by the War Department, at the request of the Surgeon General, to study typhoid fever in the camp has reached some conclusions that are in line with the suggestions made in Dr. Ramsey's paper in this issue of the JOURNAL. The report will be ready in a short time and will indicate that the water supply had but little to do with the spread of typhoid, but that the history of the appearance and spread of the disease points to the agency of the wind as a carrier of the dried germs in dust and to the common house fly as an active carrier of infection.

Dr. Andrew H. Smith, in speaking of pneumonia, says: "The lung differs from all other structures in having two separate circulations, the nutritive, supplied by the left side of the heart through the bronchial arteries, and the functional, supplied by the right side of the heart through the pulmonary artery. This double circulation underlies all the phenomena of pneumonia, and must be recognized in any definition of the disease, as without it the disease itself could not exist."

The University.—The growth and expansion of the University should be a matter of pride to every North Carolinian. In efficiency, patronage and public favor it is now second to none in the South. Its requirements are exact, its standard rigid, its tone of life high and manly. Its academic roll is the largest in the South, and in all its history it has never been so close to the people, and so able to serve them. Ambitious and needy boys should remember its motto is equality, opportunity and self-help.

The University and Bellevue Hospital Medical College.—By the will of the late Dr. Valentine Mott, perpetual provision was made for the following medals:

A gold medal to the candidate who shall prepare the best Anatomical or Anatomico-Surgical preparation.

A silver medal to the second best of that description.

A bronze medal to the candidate who shall furnish the best book of recorded cases and remarks of the professor at the Surgical Clinics.

The gold medal is awarded to Albert S. Morrow, A. B. Class 1901.

The silver medal is awarded to Arthur B. Bradshaw, Class 1901.

The bronze medal is awarded to Williard Monrort, Class 1899.

The New York Medical Journal, commenting upon an editorial in "*Medicine*," suggests segregation of the American Medical Association into geographical branches, which should meet annually at places convenient to themselves, while the entire organization should hold biennial, or, better, triennial meetings in some large city near the center of the territory constituting the United States, say Chicago, St. Louis, Kansas City or Omaha, in turn.

The association has so far outgrown its original purposes of organization, that it is no longer able to cope with the vast extent of territory to which it has spread. When the members were confined mostly to the Eastern and Middle States it was convenient and inexpensive for all members to attend. The membership has now spread from one end of the country to the other, and the plan of holding the annual meeting first in one part of the country and then another, must work a hardship on some sections of the country each time.

The *Colorado Medical Journal* takes up the inspiration first thrown out by "*Medicine*" and passed on to us by the *New York Medical Journal*, and we hope to see the question discussed, with some view to action.

The Medico Chi. Wins.—Supreme Court says it can grant degrees in dental surgery. The Medico-Chirurgical College petitioned the Common Pleas Court No. 3, for leave to amend its charter so as to grant the diplomas and degrees in dental surgery, etc.

This was resisted by the Philadelphia Dental College on the ground of want of authority to do so, etc. The Common Pleas Court decided in favor of the Medico-Chi., and the Dental College took an appeal from this decision. The Supreme Court in an opinion by Justice Dean, this morning confirmed the decision of the lower Court, and dismissed the appeal. L. Webster Fox is Secretary of the Board of Trustees.

The American Electro-Therapeutic Association.—The ninth annual meeting of the American Electro-Therapeutic Association will be held in Washington, D. C., on September 19th, 20th, and 21st, 1899, under the presidency of Dr. F. B. Bishop, of Washington.

Quite a number of papers of great scientific value have been promised and the committee of arrangements insures the members a very entertaining and pleasurable meeting. Aside from the sessions of the Association, the committee has completed arrangements for a trip to Mt. Vernon, one to Arlington, and several other social features.

The headquarters of the Association will be at Willard's Hotel, where special rates will be given to members and their families during the meeting.

Necrology.

DR. J. WISEMAN, of Farmington, Davie County, died Sunday, June 18th, in his 74th year.

He was a graduate of the University of Pennsylvania, and assistant surgeon in the 42nd Regiment, North Carolina State troops.

DR. J. LAWSON TAIT, the famous English surgeon, died suddenly at his summer home in Wales, on June 13th, 1899.

TREATMENT OF DYSENTERY.—Dr. Christopher C. Cronkhite (*Medical Review*, May 20th, 1899,) gives an interesting account of an epidemic of dysentery in which he had an opportunity of treating twenty-three cases. Owing to the bad hygienic conditions prevailing it was found very difficult to successfully combat the disease. The treatment consisted chiefly in the administration of Tannigen in doses of 5 to 10 gm. every three or four hours, according to the age, in connection with the necessary dietetic regulations. In some cases its use was preceded by small doses of calomel given for the purpose of cleansing the alimentary tract. Under this treatment the fatality in twenty-three cases was only two, and these, the author believes, would have recovered with careful and intelligent nursing. On the ground of two year's observation, he states that in diarrhea Tannigen is his first and last remedy, that it will cure ninety-nine of every one hundred cases, and that the physician can use it with absolute confidence in its powerful curative properties in dysentery and diarrhea.

Therapeutic Hints.

For Cough During Measles :

- R Spts. etheris nitrosi ʒ ij.
Ammon Chloridi, ʒ ss.
Pulv. ipecac. et. opii., ʒ i.
Syr. Simp., ʒ iij.

M. Sig. Shake well before using. Dose, one to four teaspoonfuls. —EBERT.

Acute Tonsillitis in Children :—

- R Tinct. aconiti, m. viij.
Liq. ammonii citratis, ʒ ij.
Syr. aurantii, ʒ iss.
Aq. dest. q. s. ʒ ij.

M. Sig. Teaspoonful every three hours for a child of five years.—ASHBY, *Med Record*.

Irritable Bladder After Confinement:

- R Salol.... }āā 8 (ʒ ij.)
Tinct hyoscyami }
Infus Buchu....qs. ad 180 (ʒ vi.)

M. Sig. : Tablespoonful three times a day.—*W. E. Fothergill*.

Acute Colic.—The North American Practitioner recommends the following for acute colic due to indiscretions in diet:

- R Chloroform ʒ iss
Deodorated tinct. of opium ʒ j
Camphor gr. iv
Ol. cajuput ʒ j
Aq. ʒ ij.

M. One tablespoonful to be taken every hour or two.—*New York Medical Journal*.

Pruritus of the Vulva.—In cases that are not parasitic, says the Independent Medicaire, M. Mussy advises the following application :

- R Finely powd. starch, gr. 300.
Bismuth subnit.
Potass. brom., aa gr. 15.
Calomel, gr. 8.
Powd. belladon, gr. 3.

M. To be applied twice a day. It is said to give almost instant relief.

In Cases of Felon.—Find out as soon as possible whether the bone is attacked. Should the terminal phalanx become loose, amputation will nearly always give the most useful finger, especially to workmen.

Carbolic Acid In Tetanus.—Pieraccini, in the *Il Policlino*, Vol. II, 1899, reports that tetanus, even of severe nature, is so much relieved by the subcutaneous injection of 2 per cent. solutions of carbolic acid (according to Bacelli)—in Italy—that the effect of this method can not be doubted.

The author started the treatment as late as seven days after the injury, which was accompanied by severe symptoms, and completed the same very favorably. On the first day a total of 0.1 carbolic acid was injected at suitable intervals, and as early as twenty-four hours afterwards an improvement could be observed. On the following days the quantity of carbolic acid injected was diminished. It was a strange thing that the carbolic acid could not be traced in the urine.—*The Therapist, London*.

Book Reviews.

The International Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. Seventeenth year. Price \$3.00. E. B. Treat & Co., New York. 1899.

This annual has continued through sixteen years to hold a high place in the estimation of the profession. It reviews briefly the new work of the preceding year, and its price is so low as to make it possible for all to obtain it. We know of no work for the price that fulfills its purpose so satisfactorily. New remedies and new action of old remedies are discussed ; a summary of the principle alterations in the new pharmacopœia is presented ; special articles on the more important subjects and a general review of treatment making up the bulk of the volume.

Annual and Analytical Cyclopædia of Practical Medicine. By Charles E. de M. Sajons, M. D., and One Hundred Associate Editors, assisted by Corresponding Editors, Collaborators and Correspondents. Illustrated with Chromo-Lithographs, Engravings and Maps. Volume III. The F. A. Davis Company, Philadelphia. 1899.

We have only words of commendation for the latest volume of this most excellent work. The high character that marked the work done on the two preceding volumes is evident in this. The present volume embraces Dislocations—Infantile Myxedema, and hence we find discussed in its pages such important subjects as Infantile Myxedema, by Drs. Osler and Norton ; Exophthalmic goitre, by Dr. Putnam ; Dysentery, by Dr. Flexner ; Endometritis, by Dr. Byford ; Dislocations and Fractures, by Drs. Stimson and Keyes ; Hip-joint Disease, by Dr. Sayre, et cetera. These subjects, as well as all others discussed in this volume are carefully prepared and present the most recent investigations.

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BY HENRY C. CHAPMAN, M. D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College of Philadelphia. New (2nd) Edition thoroughly revised. In one handsome octavo volume of 921 pages, with 595 engravings. Cloth, \$4.25, net; leather, \$5.25, net. Lea Brothers & Co., Philadelphia and New York.

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